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Section 1

General Information

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General Information

Introduction

Training

Dealers

All U.S. GM Dealers participating in the Center of Learning / GM Service Technical College (STC) Programs can enroll through the Center of Learning website at https://www.centerlearning.com. Within the website, there are individual training paths that are designed to assist in planning the training needs for each individual and their job role. Dealers who have questions about Center of Learning Training should contact the Center of Learning help desk at 1-888-748-2687. The help desk is available Monday through Friday, 8:00 am – 9:00 pm Eastern Standard Time, excluding holidays. For GM Access support, contact the GM Access Help Desk at 1-888-337-1010.

Fleets

GM Fleet customers with GM Warranty In-Shop agreements are able to participate in service technical training through the Center of Learning/GM Service Technical College (STC).

Assistance for GM fleet registered customers using GM STC training is provided by the Center of Learning help desk at 1-888-748-2687. The help desk is available Monday through Friday, 8:00 am–9:00 pm Eastern Standard Time, excluding holidays. For GM Access support, contact the GM Access Help Desk at 1-888-337-1010.

Most GM STC course materials have associated charges.

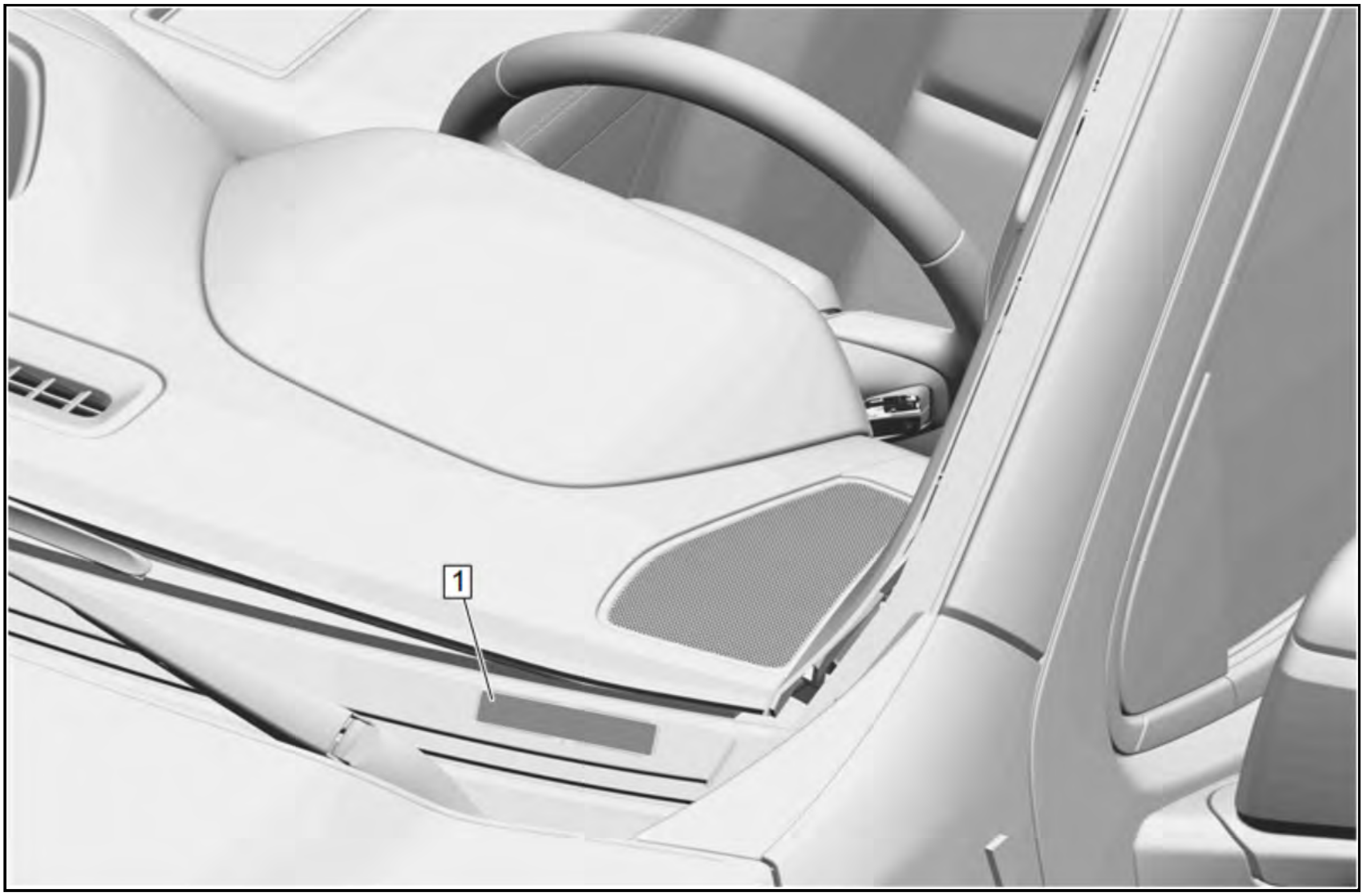
To purchase authentic GM STC Training Materials, contact the GM Training Materials Headquarters at 1-800-393-4831.

Non-GM Dealer Technicians

Technician training for non-GM dealers is available through ACDelco. This training is for ACDelco PSC and Fleet program members employed in the automotive or truck service industry.

ACDelco courses are available at approved GM STC Training Centers. Availability and schedules can be obtained by calling 1-800-825-5886 (prompt 1) or contact us via the web at www.acdelcotechconnect.com and select the Training tab. Seminars are also offered through the ACDelco Warehouse Distribution channel. Contact your Local ACDelco representative or distributor directly for more information.

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage



The VIN plate (1) is the legal identifier of the vehicle. The VIN plateis located on the upper left corner of the instrument panel (I/P) and can be seen through the windshield from the outside of the vehicle:

Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Country of Origin	1	United States
2	Manufacturer	G	General Motors
3	Vehicle Brand/Type	T	GMC Truck
4	GVWR/Brake System/Body Style	G	5001–6000/Hydraulic – Crew Cab
		H	5001–6000/Hydraulic – Extended Cab
		P	6001–7000/Hydraulic – CrewCab
		R	6001–7000/Hydraulic – Extended Cab
5–6	Chassis/Series	5/B	GMC Canyon, Elevation 2WD
		6/B	GMC Canyon, Elevation 4WD
		6/D	GMC Canyon, AT4 4WD
		6/E	GMC Canyon, AT4X 4WD
		6/F	GMC Canyon, Denali 4WD
		6/9	GMC Canyon, (Non-US, Non-Canada)

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
7	Restraint System	E	AYH - Active Manual Belts, Airbags-Driver & Passenger-Front (1st 1: United States row), Front Seat Side (1st row), Roof Side (all seating rows)
8	Engine Type	C	L2R - ENGINE-GAS, 4 CYL, L4, 2.7L, DI, TURBO, DOHC, ALUM
		K	L3B - ENGINE GAS, 4CYL, L4, 2.7L, SIDI, VVT, TURBO, DOHC, ALUM
9	Check Digit	—	Check Digit
10	Model Year	R	2024
11	Plant Location	1	Wentzville, MO
12–17	Plant Sequence Number	—	Plant Sequence Number

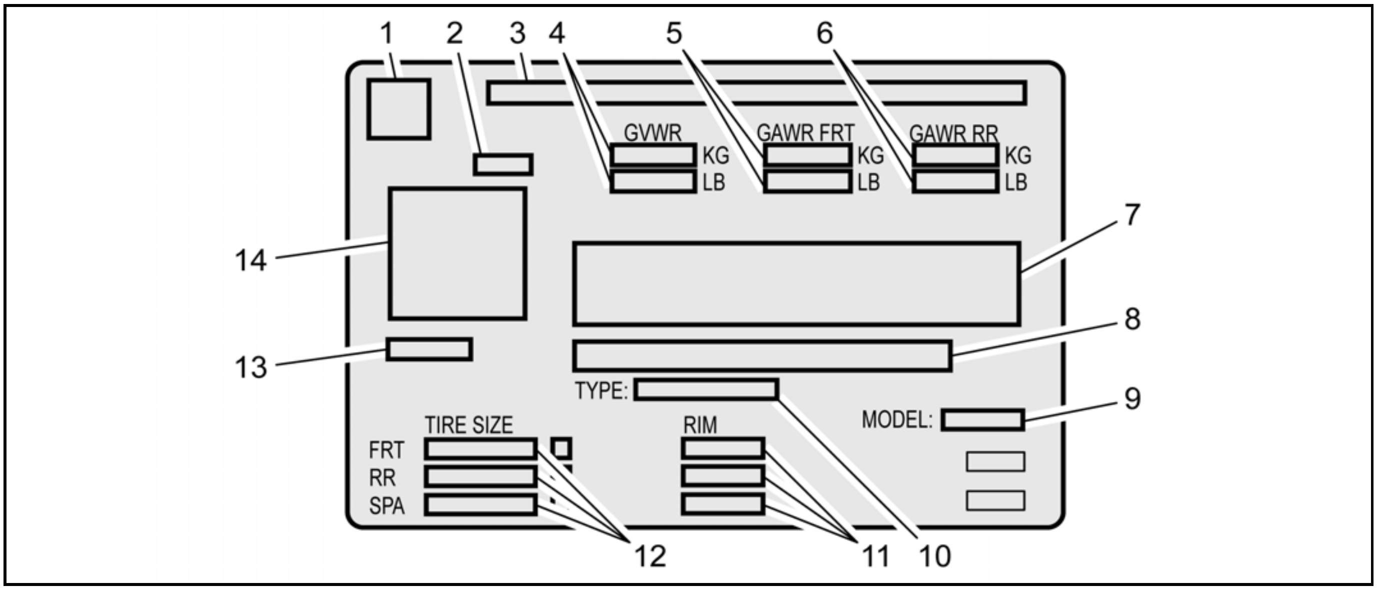
2.7L Engine ID and VIN Derivative Location

Engine Identification

8L45/8L90 Transmission ID and VIN Derivative Location

Transmission Identification Information

Vehicle Certification, Tire Placard, and Anti-Theft Label

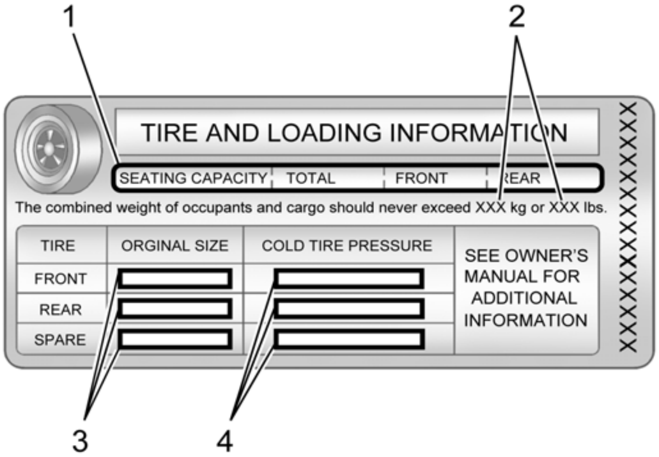


Vehicle Certification Label

Callout	Description
A vehicle-specific Certification label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Logo
2	Final Date of Manufacture (Month and Year MM/YY) Date of manufacture is to reflect the date that the vehicle is counted as built. In those cases where a replacement label is needed, the replacement label should reflect the actual build date not the date of replacement.
3	Name of Manufacturer
4	Maximum Gross Vehicle Weight Rating (GVWR)
5	Maximum Gross Axle Weight Rating (GAWR) - Front
6	Maximum Gross Axle Weight Rating (GAWR) - Rear
7	Certification Statement

Vehicle Certification Label (cont'd)

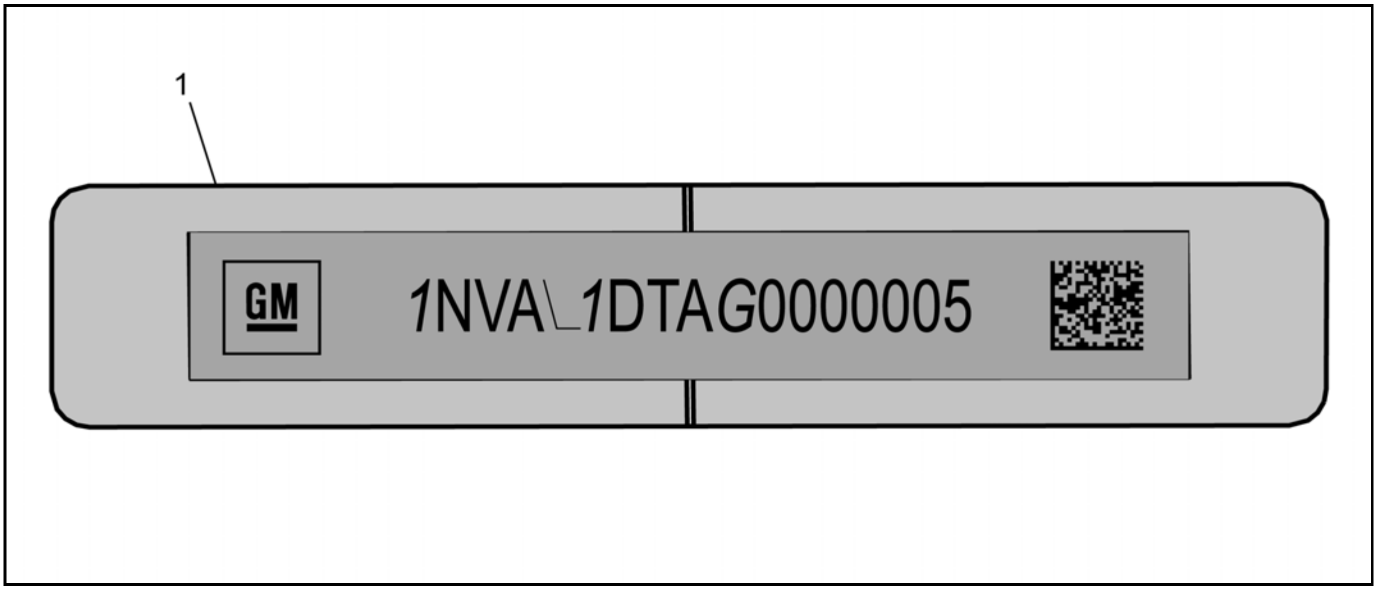
Callout	Description
8	Vehicle Identification Number (VIN)
9	Engineering Model Number
10	Vehicle Class Type (Pass Car, etc.)
11	Original Equipment Rim Size
12	Original Equipment Tire Size
13	Paint Code
14	QR Code Once the QR code is scanned, the information will appear in this order on your smartphone or laptop: VIN, Model Year, Model, Build Month, Year, Engineering Book, Vehicle Order Number, 3 Digit RPO Codes sorted alphanumerically and the Paint Code (same code appears the lower left of the QR code)


1
2
TIRE AND LOADING INFORMATION
SEATING CAPACITY
TOTAL
FRONT
REAR
The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs.
TIRE
ORGINAL SIZE
COLD TIRE PRESSURE
SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
FRONT
REAR
SPARE
XXXXXXXXXXXXXX
3
4

4962282

Tire Placard

Callout	Description
A vehicle-specific Tire and Loading Information label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Specified Occupant Seating Positions
2	Maximum Vehicle Capacity Weight
3	Original Equipment Tire Size
4	Tire Pressure, Front, Rear, and Spare (Cold)



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Anti-Theft Label

Callout	Description
This legal identifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the windshield from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification and certificates of title and registration.	
1	Vehicle Identification Number (VIN)

RPO Code List

The following table provides the description of the Regular Production Option (RPO) codes that are available on the vehicle. The vehicle's RPO list is printed on the Service Parts Identification Label.

RPO	Description
060	IDENTIFICATION - NOT EQUIPPED WITH FRONT AND/OR REAR PARK ASSIST
2VL	PACKAGE - VL OPTION 2
3F9	SEAT BELT COLOR - RED (01)
4AA	INTERIOR TRIM - JET BLACK
4AE	INTERIOR TRIM - JET BLACK/FAWN
4B4	INTERIOR TRIM - JET BLACK/CERAMIC WHITE
4ID	INTERIOR TRIM - JET BLACK / SIGNET
4SG	PACKAGE - AT4 OPTION 2
4TX	PACKAGE - AT4X OPTION 4
4VL	PACKAGE - VL OPTION 4
5BO	ACCESSORY - LAMP KIT - OFF ROAD
5GD	CALIBRATION - TURN ON TOW/ HAUL MODE
5SB	PACKAGE - DENALI OPTION 2
5VI	ACCESSORY - TIE DOWN RINGS - CARGO AREA
5VQ	ACCESSORY - PUBX BEDLINER - W/ INTEGRAL STORAGE COMPARTMENTS
5XC	ACCESSORY - SNORKEL - AIR INTAKE
65C	LABEL, WARNING - CALIFORNIA, PROP 65 COMPLIANT
6K5	ADJUSTER DRIVER SEAT - 8WAY, PWR RECLINE, PWR FORE/AFT, PWR HEIGHT, PWR TILT
6K5	CHARGER - INDUCTIVE PORTABLE WIRELESS DEVICE
6K5	COMPARTMENT - STOWAGE TAILGATE
6K5	ENGINE - GAS, 4 CYL, L4, 2.7L, SIDI, VVT, TURBO, DOHC, ALUM
6K5	EQUIPMENT - ASSIST, OPEN & CLOSE, TAILGATE
6K5	HEATER SEAT FRT - DRVR & PASS
6K5	HVAC SYSTEM - AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT
6K5	LOCK CYLINDER - RR COMPT
6K5	LUMBAR DRIVER - SEAT, POWER, 2 WAY
6K5	MIRROR I/S R/V - LT SENSITIVE
6K5	MIRROR O/S - LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS
6K5	REMOTE START - VEHICLE
6K5	SALES PACKAGE - CONVENIENCE
6K5	STEERING COLUMN - TILT, TELESCOPING
6K5	TIRE SPARE - 255/65R17 SL 110T BW ALS VAR1
719	SEAT BELT COLOR - BLACK (10)

RPO	Description
A28	WINDOW RR - FULL WIDTH, SLIDING, MANUAL
A2V	ADJUSTER DRIVER SEAT - 6WAY, DISCONT MAN RECLINE, MAN FORE/AFT, MAN HEIGHT
A2X	ADJUSTER DRIVER SEAT - 8WAY, PWR RECLINE, PWR FORE/AFT, PWR HEIGHT, PWR TILT
A45	MEMORY - SEAT ADJUSTER, MIRROR, POWER, DRIVER, PERSONALIZATION
A50	SEAT - FRT BKT
A7E	ADJUSTER PASS ST - 4WAY, DISCONT MAN RECLINE, MAN FORE/AFT
A7J	ADJUSTER PASS ST - 6WAY, PWR RECLINE, PWR FORE/AFT, PWR HEIGHT
A91	LOCK CONTROL RR CMPT - TAILGATE, REM CONT ELEC OPEN/CLOSE
AAK	ACCESSORY - FLOOR LINER - CONTOURED - ALT DESIGN 1
ACH	RESTRAINT PROVISIONS - RETRACTOR, AUTOMATIC LOCKING
AED	WINDOW REG PASS DR - POWER OPERATED,EXPRESS DOWN
AEO	RESTRAINT - SEAT BELT 2ND TENSIONER, FRT
AEQ	WINDOW REG REAR DR - POWER OPERATED, EXPRESS DOWN
AGJ	WINDOW SIDE FRT - TEMPERED, SOLAR GLAZING
AKK	WINDSHIELD STYLE - ACOUSTIC PVB
AKO	WINDOW TYPE - PRIVACY
AKX	WINDSHIELD TYPE - SOLAR ABSORBING
AL0	SENSOR INDICATOR - INFLATABLE RESTRAINT, FRT PASS/CHILD PRESENCE DETECTOR
AL9	LUMBAR DRIVER - SEAT, POWER, 2 WAY
AQP	RESTRAINT - HEAD, RR SEAT, CENTER
ARU	WINDOW SIDE RR - TEMPERED, PRIVACY GLAZING
AT7	RESTRAINT SYSTEM RR - SEAT, SHLDR, RETR, 3 POINT, 3 SHLDR
AT9	LUMBAR PASSENGER - SEAT, POWER, 2 WAY
AUW	SEAT REAR - FOLDING, CUSHION 60/40, STORAGE BOX
AVJ	LOCK CONTROL, ENTRY - REMOTE ENTRY, EXTENDED RANGE, PASSIVE ENTRY, FRONT DOORS
AVN	RESTRAINT - HEAD, RR SEAT
AXG	WINDOW REG DRVR DR - POWER OPERATED, EXPRESS UP/DOWN
AXK	VEHICLE TYPE - TRUCK
AYH	RESTRAINT SYSTEM - DRVR (SINGLE, ADAPTIVE) & PASS (DUAL) FRT, SEAT SIDE, ROOF SIDE

RPO	Description
B26	MIRROR O/S - LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS
B26	PARK ASSIST - REAR
B26	REAR CROSS TRAFFIC - ALERT, BRAKING
B26	SALES PACKAGE - CONVENIENCE
B26	SIDE ACTIVE SAFETY - OBSTACLE DETECTION ENHANCED, STEERING ASSIST
B26	SIDE ACTIVE SAFETY - OBSTACLE DETECTION ENHANCED, STEERING ASSIST, EXTENDED TRAILER VIEW
B30	COVERING FLOOR - CARPET
B34	COVERING FRT - FLOOR MATS, CARPETED INSERT
B35	COVERING REAR - FLOOR MATS, CARPETED INSERT
B96	MOLDING WHL OPENING -
BCP	COVER ENGINE - APPEARANCE
BDR	LOCK CYLINDER - RR COMPT
BPC	COMPARTMENT - STOWAGE TAILGATE
BS5	INSULATION - FLR, ACOUSTICAL PKG, VAR. 2
BTM	SWITCH - START, KEYLESS
BTV	REMOTE START - VEHICLE
BW5	MOLDING B/S (OPEL) - EXTR, MLDG, SIDE WINDOW REVEAL, BLACK
BW7	ORNAMENTATION - EXTR, PLR APLQ
BWN	STEPS - CORNER ASSIST, BUMPER
BZT	STEPS, RUNNINGBOARD - PROTECTOR, ROCKER PANEL, BLACK
C49	DEFOGGER - RR WINDOW, ELECTRIC
C59	VENT - AIR, CONSOLE, RR
C67	HVAC SYSTEM - AIR CONDITIONER FRT, ELECTRONIC CONTROLS
C75	LAMP - INTR, FRT HEADER, COURTESY & DUAL READING
C7C	HEATER - AIR CONDITIONER DUCT, RR PASS
C91	LAMP - INTR, ROOF, COURTESY
CAC	ROOF - SUN, SINGLE GLASS, INR SLIDING, MAN SUNSHADE
CGN	LINER - PUBX, SPRAY ON
CJ2	HVAC SYSTEM - AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT
CTT	HITCH ASSIST - GUIDELINES
CWM	CRUISE CONTROL - AUTOMATIC, ADAPTIVE, WITH STOP/GO
CWM	LOCK CYLINDER - RR COMPT
CWM	SALES PACKAGE - SAFETY PACKAGE VAR. 1
CWM	SENSOR INDICATOR - PEDESTRIAN DETECTION - REAR

RPO	Description
CWM	SPEAKER SYSTEM - PREMIUM AUDIO, BRANDED AMPLIFIER
CWM	VISION - 360 VIEW, MONO, HD DIGITAL
CWM	WHEEL - 20 X 9.0, J, ALUMINUM, DESIGN 18
D07	CONSOLE - FRT COMPT, FLOOR, CUSTOM
D31	MIRROR I/S R/V - TILT
D75	HANDLE O/S DOOR - BODY COLOR
DA5	ARM REST - RR SEAT, CENTER
DD8	MIRROR I/S R/V - LT SENSITIVE
DEG	SUNSHADE - DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING
DIL	LENS INFOT DISPLAY - FULL GLASS
DLF	MIRROR O/S - LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS
DLV	MIRROR I/S FRT VAN - SUNSHADE, DRIVER & PASS, W/MIRROR & COVER
DNS	EQUIPMENT - SUPPLIER INSTALLED
DP6	MIRROR PROVISIONS - HOUSING, PAINTED
DP9	MIRROR PROVISIONS - HOUSING, CHROME
DWV	MIRROR O/S - LH & RH, RC, ELEC, MANFOLD, FLAT/DRVR, CNVX/PASS
E15	STEPS - ASSIST, CHROME
E20	HANDLE O/S DOOR - CHROME
E33	HANDLE - I/S, DR, GLOSSY CHROME
E63	BODY EQUIPMENT - FLEETSIDE PICK-UP BOX
E90	POCKET - FRONT SEAT BACK, DRIVER
E91	POCKET - FRONT SEAT BACK, PASS
EF7	COUNTRY - UNITED STATES OF AMERICA (USA)
ENL	ENG CONTROL DISABLE - STOP/START, NON-LATCHING
F46	CHASSIS DRIVE LINE - ALL WHEEL DRIVE (AWD)/FOUR WHEEL DRIVE(4WD)
FE9	CERTIFICATION - EMISSION, FEDERAL
FJW	VEHICLE FUEL - GASOLINE E15
G80	AXLE POSITRACTION - LIMITED SLIP
G93	AXLE - FRT ELECTRONIC LOCKING DIFFERENTIAL, DRIVER SELECT
G94	AXLE - RR ELECTRONIC LOCKING DIFFERENTIAL, DRIVER SELECT
GAZ	PRIMARY COLOR - EXTERIOR, SUMMIT WHITE (G) 8624
GBA	PRIMARY COLOR - EXTERIOR, BLACK (G) 8555
GCP	PRIMARY COLOR - EXTERIOR, TRIPP MET-1 (628G)
GLT	PRIMARY COLOR - EXTERIOR, POW ZINGA MET-1 (327E)

RPO	Description
GNT	PRIMARY COLOR - EXTERIOR, RADIANT RED TINT MET-1 (170H)
GTL	PRIMARY COLOR - EXTERIOR, SAND DUNE MET-1 (661G)
GU6	AXLE REAR - 3.42 RATIO
GXD	PRIMARY COLOR - EXTERIOR, SHARKSKIN MET-1 (130H)
GXN	PRIMARY COLOR - EXTERIOR, RETROGRADE MET-1 (135H)
H2Z	INTERIOR TRIM CONFIG - CLOTH, LEVEL 2, VAR1, JET BLACK
HNN	INTERIOR TRIM CONFIG - LEATHER, LEVEL 1, JET BLACK / FAWN
HS1	ALERT - SAFETY HAPTIC SEAT
HV1	INTERIOR TRIM CONFIG - LEATHER, LEVEL 3.1, JET BLACK / CERAMIC WHITE
HV6	INTERIOR TRIM CONFIG - CLOTH/VINYL, LEVEL 1, JET BLACK / SIGNET
HX6	INTERIOR TRIM CONFIG - LEATHER, LEVEL 3, JET BLACK / SIGNET
HXR	INTERIOR TRIM CONFIG - VINYL, LEVEL 2, JET BLACK
IKP	VEH CONTENT BASIS - US
IVD	INFOTAINMENT - VIRTUAL COCKPIT SYS - MID
J24	ENGINEERING YEAR - 2024
JCF	BRAKE ROTOR - FNC
JGU	BRAKE SYSTEM - 17" FRT FIXED CALIPER DISC, 17" RR SLIDING CALIPER DISC
JHE	CONTROL - HILL DESCENT CONTROL (HDC)
JL1	BRK APL CTRL FEATURE - INTEGRATED TRAILER BRAKE
K05	HEATER ENG - BLOCK
K1O	FILTER MONITOR - ENGINE AIR
K34	CRUISE CONTROL - AUTOMATIC, ELECTRONIC
K4C	CHARGER - INDUCTIVE PORTABLE WIRELESS DEVICE
K4F	BATTERY - LN4, AGM, 12V, 80AH, 800 ENCCA
KA1	HEATER SEAT FRT - DRVR & PASS
KC9	RECEPTACLE PUBX - ELECTRICAL, 110 VOLT
KI3	STEERING WHEEL HEAT - AUTOMATIC
KI6	RECEPTCL FRT CNSL RR - ELECTRICAL, 110 VOLT
KL9	ENG CONTROL - STOP/START SYS, CONVENTIONAL AT, CONVENTIONAL MT OR BRAKE RELEASE LATE RESTART
KPA	RECEPTACLE - ELECTRICAL, FRT CONSOLE RR, 12 VOLT
KQX	CAP - FUEL FILL, CAPLESS SYSTEM
KRV	REFRIGERANT - LOW GWP

RPO	Description
KSG	CRUISE CONTROL - AUTOMATIC, ADAPTIVE, WITH STOP/GO
KU9	VENTILATED SEAT FRT - DRVR & PASS
KW5	GENERATOR - 220 AMP
KW7	GENERATOR - 170 AMP
L3B	ENGINE - GAS, 4 CYL, L4, 2.7L, SIDI, VVT, TURBO, DOHC, ALUM
LHD	VEHICLE DRIVE - LEFTHAND DRIVE
MFC	TRANSMISSION - AUTO 8 SPD, 8L80, GEN 2, ATSS, CPA
MFI	MOLDING B/S UPPER - SPORT, WINDOW ALL AROUND
N33	STEERING COLUMN - TILT TYPE
N37	STEERING COLUMN - TILT, TELESCOPING
N5G	STEERING WHEEL - SYNTHETIC, 4 SPOKE, SPORT, ROUND
NAM	NAVIGATION - APPS
NCH	LOCK - MANUAL CHILD LOCK SYSTEM (REAR DOOR LATCH)
NE1	CERTIFICATION - EMISSION, GEOGRAPHICALLY RESTRICTED REGISTRATION
NE8	EVAPORATIVE SYSTEM - LEVEL 3 EMISSIONS
NKD	NOISE CONTROL - ENGINE SOUND ENHANCEMENT, ADDED
NP0	TRANSFER CASE - ACTIVE, SINGLE SPEED,SWITCH ACTIVATED,ALUM
NQH	TRANSFER CASE - ACTIVE, TWO SPEED, SWITCH ACTIVATED, ALUM
NTB	EMISSION SYSTEM - FEDERAL, TIER 3
NUG	EMISSION SYSTEM - CALIFORNIA, SULEV30
NYG	WHEEL SPARE - 20 X 9.0, J, ALUMINUM, DESIGN 3
P1D	CARRIER - BED MOUNTED, SPARE TIRE
PAN	PHONE PROJ TECH - VAR 1
PAP	PHONE PROJ TECH - VAR 2
PPA	EQUIPMENT - ASSIST, OPEN & CLOSE, TAILGATE
PPW	PHONE PROJECTION - PHONE PROJECTION WIRELESS
PZ8	IMAGE ADJUSTMENT - HITCH VIEW
PZ9	PLATE - SKID, FUEL TANK
PZG	PLATE - SKID FRT
PZL	PLATE - SKID RR DIFFERENTIAL
PZN	PLATE - SKID TRANSFER CASE
Q2P	TIRE ALL - 265/65R18 SL 114T AT VAR 2
QAE	TIRE ALL - 275/60R20 SL 115S BW AT
QAF	TIRE ALL - LT285/70R17 C 116/113Q BW OOR

RPO	Description
QTE	TIRE ALL - LT315/70R17 C 113/110 S BW OOR VAR1
R34	WHEEL - 17 X 8.0, J, ALUMINUM, DESIGN 5
R3O	TIRE ALL - LT275/65R18 C 113/110Q BW OOR, VAR1
R5C	TIRE BRAND ALL - BRIDGESTONE
R88	ACCESSORY - ILLUMINATED EMBLEM - EXTERIOR - DESIGN 2
RD4	WHEEL - 20 X 9.0, J, ALUMINUM, DESIGN 4
RD5	WHEEL - 20 X 9.0, J, ALUMINUM, DESIGN 5
RD8	TIRE SPARE - LT315/70R17 C 113/110 S BW OOR VAR 1
RDI	ACCESSORY - KEYLESS ENTRY
RIA	ACCESSORY - FLOOR LINER - CONTOURED
RIK	ACCESSORY - BADGE - EXTERIOR, PACKAGE, DESIGN 1
RM7	WHEEL SPARE - 17 X 8.0, J, STEEL, DESIGN 1
RMR	TIRE SPARE - LT285/70R17 C 116/113Q BW OOR
RMW	TIRE SPARE - 275/60R20 SL 115S BW AT
RPM	WHEEL - 17 X 8.5, J, ALUMINUM, DESIGN 8
RPP	WHEEL - 17 X 8.0, J, STEEL, DESIGN 4
RPS	WHEEL - 20 X 9.0, J, ALUMINUM, DESIGN 13
RQ8	WHEEL - 18 X 8.5, J, ALUMINUM, DESIGN 10
RQL	WHEEL - 18 X 8.5, J, ALUMINUM, DESIGN 11
RSR	OCCUPANT DETECT SYS - REAR SEAT, DOOR ACTIVATED
RVP	ACCESSORY - ASSIST STEPS - REMOVABLE
RW2	ACCESSORY - BED RAILS - BLACK
RWF	ACCESSORY - JOUNCE SHOCKS
RWL	CHASSIS DRIVE LINE - REAR WHEEL DRIVE (RWD)
RXC	ACCESSORY - AIR, POLLUTANT, ODOR, FINE DUST, ALLERGEN
RXH	ACCESSORY - CENTER CAP - WHEEL - DESIGN 1
RXJ	ACCESSORY - CENTER CAP - WHEEL - DESIGN 2
RYT	ACCESSORY - FIRST AID KIT
RZU	ACCESSORY - LAMPS-AUX OFF ROAD
RZW	ACCESSORY - HARNESS - TRAILER HITCH
RZY	ACCESSORY - HARNESS - WIRING
S08	ACCESSORY - HIGHWAY SAFETY KIT
S0Y	ACCESSORY - LAMPS - CARGO AREA

RPO	Description
S1H	ACCESSORY - OFF-ROAD RECOVERY KIT
S3W	ACCESSORY - LAMPS - FRONT GRILLE MOUNTED - OFF-ROAD
S3X	ACCESSORY - LAMPS - FRONT ROOF MOUNTED - OFF-ROAD
S47	ACCESSORY - LUG NUTS
S6L	ACCESSORY - PROTECTOR - ROCKER PANEL
S6P	ACCESSORY - REMOTE START KIT
SA5	ACCESSORY - SHIELD - UNDERBODY
SAX	ACCESSORY - SPEAKER KIT - LEVEL 1
SB1	ACCESSORY - SPLASH GUARDS - FLAT
SBY	ACCESSORY - SPORT BAR - BED MOUNTED - DESIGN 1
SD0	ACCESSORY - OFF ROAD FRONT BUMPER FASCIA
SD5	ACCESSORY - TIRE PRESSURE MONITOR
SDE	ACCESSORY - TRAILER HITCH - REMOVABLE
SFE	ACCESSORY - WHEEL LOCKS
SFZ	ACCESSORY - EMBLEM - EXTERIOR - DESIGN 1
SIQ	ACCESSORY - SKID PLATES - FRONT DESIGN 1
SIR	ACCESSORY - SKID PLATES - REAR DESIGN 1
SJ8	ACCESSORY - ILLUMINATION PACKAGE - INTERIOR AMBIENT
SKN	WHEEL SPARE - 17 X 8.5, J, ALUMINUM, DESIGN 2
SMU	ACCESSORY - WHEEL - 17 X 8.0 - J - ALUMINUM - DESIGN 2
SMZ	ACCESSORY - OFF ROAD DRIVE SHAFT
SNX	ACCESSORY - WHEEL - 20 X 9 - J - ALUMINUM - DESIGN 1
SPY	ACCESSORY - LUG NUTS - ALT FINISH
SPZ	ACCESSORY - WHEEL LOCKS - ALT FINISH
SQI	ACCESSORY - SUSPENSION LIFT KIT
SRL	ACCESSORY - WHEEL - 22 X 9.0 - J - ALUMINUM - DESIGN 13
SRV	ACCESSORY - WHEEL - 22 X 9.0 - J - ALUMINUM - DESIGN 14
T3V	LAMP - CHMSL - CENTER HIGH MOUNT STOP LIGHT (SEE BFO BEFORE USING)
T40	LAMP FRT FOG - FRT FOG, LED
T4L	HEADLAMPS - LED
T7E	LAMP SYSTEM - DAYTIME RUNNING, LED
T83	CONTROL, HEADLAMPS - AUTOMATIC ON-OFF
T8Z	SEAT BELT SAFETY SYS - SHIFTER INTERLOCK, GEN 3, INFOTAINMENT CUSTOMIZABLE

RPO	Description
T93	LAMP - TAIL & STOP, SPECIAL
TCA	LAMP - DOME, CENTER
TDM	MODE DRIVER SETTINGS - TEEN DRIVER, INFOTAINMENT
TGZ	ACCESSORY - TAILGATE ORGANIZER DESIGN 3
TQ5	HEADLAMP HIGH BEAM - AUTO CONTROL
U1D	INDICATOR - TRAILER INFORMATION
U2K	DIGITAL AUDIO SYSTEM - S-BAND
U91	ANTENNA - SHORT, ROOF, RADIO
UBD	RECPT USB FLR CNSL F - DUAL, CHARGE, DATA
UBI	RECPT USB FLR CNSL R - DUAL, CHARGE
UBP	RECPT USB FLR CNSL R - SINGLE, CHARGE
UD7	PARK ASSIST - REAR
UE1	COMMUNICATION SYSTEM - VEHICLE, ONSTAR
UE4	SENSOR INDICATOR - FOLLOWING DISTANCE
UEU	SENSOR INDICATOR - FORWARD COLLISION ALERT
UF2	LAMP - CARGO
UFB	REAR CROSS TRAFFIC - ALERT, BRAKING
UGA	HOOK - TOW, RED
UH5	INDICATOR - SEAT BELT WARNING, REAR SEAT
UHX	LANE ACTIVE SAFETY - KEEP ASSIST
UHY	COLL IMMINENT BRK - LOW SPEED, VEH FWD MOVEMENT, BRAKE PREFILL, INTEGRATED BRAKE ASSIST
UIT	ALERT DISPLAY - REFLECTED, SINGLE COLOR
UJN	TIRE PRESS INDICATOR - AUTO LEARN
UKI	SIDE ACTIVE SAFETY - OBSTACLE DETECTION ENHANCED, STEERING ASSIST
UKK	SENSOR INDICATOR - PEDESTRIAN DETECTION - REAR
UKT	PED DETECTION FRT - ENHANCED, PEDESTRIANS AND BICYLISTS
UKW	SIDE ACTIVE SAFETY - OBSTACLE DETECTION ENHANCED, STEERING ASSIST, EXTENDED TRAILER VIEW
ULK	ACCESSORY - TOW HOOKS - RED
ULV	ACCESSORY - FLOOR LINER - CONTOURED
ULV	ACCESSORY - JOUNCE SHOCKS
ULV	ACCESSORY - WHEEL FLARES
ULV	BUMPER - RR, VAR 1
ULV	BUMPER FRT - SPORT

RPO	Description
ULV	CARRIER - BED MOUNTED, SPARE TIRE
ULV	EQUIPMENT - SUPPLIER INSTALLED
ULV	PLATE - SKID FRT
ULV	PLATE - SKID RR DIFFERENTIAL
ULV	PLATE - SKID TRANSFER CASE
ULV	PLATE - SKID, FUEL TANK
ULV	SALES PACKAGE - SAFETY PACKAGE VAR. 1
ULV	TIRE ALL - LT315/70R17 C 113/110 S BW OOR VAR1
ULV	TIRE SPARE - LT315/70R17 C 113/110 S BW OOR VAR 1
ULV	WHEEL - 17 X 8.5, J, ALUMINUM, DESIGN 6
ULV	WHEEL SPARE - 17 X 8.5, J, ALUMINUM, DESIGN 1
UMN	SPEEDOMETER - INST, MILES & KILO, MILES ODOMETER
UQ3	SPEAKER SYSTEM - ENHANCED AUDIO
UQA	SPEAKER SYSTEM - PREMIUM AUDIO, BRANDED AMPLIFIER
URC	SWITCH - FLEXRIDE MODE SYSTEM
URF	DISPLAY INSTRUMENT - DRIVER INFO, DISPLAY ONLY, FAMILY C, 11", 2000 X 810
URL	INFOTAINMENT DISPLAY - FAMILY C, 11"+, 2000X970
UTJ	THEFT DETERENT - ELECTRICAL, UNAUTHORIZED ENTRY
UUA	DISPLAY AOS - OCCUPANT SENSING, MVSS
UUT	ALARM, HORN - TIRE FILL ALERT
UV2	VISION - 360 VIEW, MONO, HD DIGITAL
UV6	HEAD UP DISPLAY - WINDSHIELD
UVB	VISION - REAR VIEW, MONO, HD DIGITAL
UXA	VISION UNDERBODY - FORWARD AND REARWARD FACING
V8D	VEHICLE STATEMENT - VEHICLE LABEL CONTENT - U.S. FMVSS
VAV	ACCESSORY - FLOOR MATS - ALL WEATHER
VBP	ACCESSORY - POWER DISTRIBUTION BOX
VBR	ACCESSORY - PUBX RUBBER MAT
VHM	PROGNOSTIC SYSTEM - VEHICLE HEALTH MANAGEMENT
VJQ	HOOK - TOW, FRT
VK3	LICENSE PLATE FRONT - FRT MOUNTING PKG
VKV	ACCESSORY - WHEEL FLARES
VOZ	ACCESSORY - TONNEAU - RR COMPT - HARD FOLDING - ALT DESIGN
VPB	ACCESSORY - TONNEAU - RR COMPT - VINYL W/ INTEGRAL CROSSBOW SUPPORTS

RPO	Description
VQD	BUMPER FRT - CHANNEL, STEEL, BLACK
VQH	BUMPER - RR, VAR 1
VQK	ACCESSORY - SPLASH GUARDS - CUSTOM MOLDED
VQM	ACCESSORY - ASSIST STEPS - CHROME
VQO	ACCESSORY - ASSIST STEPS - BLACK
VQZ	ACCESSORY - EXHAUST TIP - DESIGN 1
VST	ACCESSORY - SILL PLATES - ALTERNATE DESIGN 1
VTA	ACCESSORY - EXHAUST TIP - DESIGN 2
VV4	COMMUNICATION EQUIP - MOBILE INTERNET CONNECTIVITY
VW1	ACCESSORY - WINCH
VW9	ACCESSORY - CENTER CAP - WHEEL - DESIGN 3
VWD	ACCESSORY - CENTER CAP - WHEEL - DESIGN 4
VZJ	ACCESSORY - SWITCH PLATE - INTERIOR
VZT	ACCESSORY - ASSIST STEPS - OFF ROAD
W0H	ACCESSORY - TOW HOOKS - ALT FINISH
W1Y	CONTROL - STEERING WHEEL, RADIO, REDUNDANT CONTROLS
W7X	PERFORMANCE PACKAGE - INCREASED ENGINE HORSE POWER
WEN	PLANT CODE - WENTZVILLE, MO, USA
WLD	WINDOW CONTROL - REMOTE EXPRESS DOWN, ALL WINDOWS
WMI	SHUTTERS - FRONT GRILLE, ACTIVE, UPR AND LWR
WMY	VIN MODEL YEAR - 2024
WPC	ADJUSTER PASS ST - 6WAY, PWR RECLINE, PWR FORE/AFT, PWR HEIGHT
WPC	ARM REST - RR SEAT, CENTER
WPC	CHARGER - INDUCTIVE PORTABLE WIRELESS DEVICE
WPC	COMPARTMENT - STOWAGE TAILGATE
WPC	DEFOGGER - RR WINDOW, ELECTRIC
WPC	EQUIPMENT - ASSIST, OPEN & CLOSE, TAILGATE
WPC	HVAC SYSTEM - AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT
WPC	INTERIOR TRIM CONFIG - LEATHER, LEVEL 3, JET BLACK / SIGNET
WPC	LAMP - INTR, FRT HEADER, COURTESY & DUAL READING
WPC	LAMP FRT FOG - FRT FOG, LED
WPC	LOCK CYLINDER - RR COMPT
WPC	LUMBAR PASSENGER - SEAT, POWER, 2 WAY
WPC	MEMORY - SEAT ADJUSTER, MIRROR, POWER, DRIVER, PERSONALIZATION
WPC	MIRROR I/S R/V - LT SENSITIVE

RPO	Description
WPC	MIRROR O/S - LH & RH, RC, ELEC, HEAT, MAN FOLD, FLAT/DRVR, CNVXPASS
WPC	PARK ASSIST - REAR
WPC	POCKET - FRONT SEAT BACK, DRIVER
WPC	REAR CROSS TRAFFIC - ALERT, BRAKING
WPC	RECEPTACLE PUBX - ELECTRICAL, 110 VOLT
WPC	RECEPTCL FRT CNSL RR - ELECTRICAL, 110 VOLT
WPC	RECPT USB FLR CNSL R - DUAL, CHARGE
WPC	REMOTE START - VEHICLE
WPC	SIDE ACTIVE SAFETY - OBSTACLE DETECTION ENHANCED, STEERING ASSIST
WPC	SIDE ACTIVE SAFETY - OBSTACLE DETECTION ENHANCED, STEERING ASSIST, EXTENDED TRAILER VIEW
WPC	STEERING COLUMN - TILT, TELESCOPING
WPC	STEERING WHEEL HEAT - AUTOMATIC
WPC	SUNSHADE - DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING
WPC	VENTILATED SEAT FRT - DRVR & PASS
WPC	WINDOW RR - FULL WIDTH, SLIDING, MANUAL
WPC	SALES PACKAGE - COMFORT AND CONVENIENCE
WPL	ARM REST - RR SEAT, CENTER
WPL	INTERIOR TRIM CONFIG - VINYL, LEVEL 2, JET BLACK
WPL	POCKET - FRONT SEAT BACK, DRIVER
WPL	SALES PACKAGE - COLD WEATHER
WPL	SALES PACKAGE - DRIVER AWARENESS 1
WPL	SALES PACKAGE - LUXURY
XCQ	TIRE SPARE - 265/70R17 SL 115S BW SPR VAR1
XD5	ACCESSORY TIRE - TIRE ALL-275/50R22 SL 111T BW AL2
XDF	ACCESSORY TIRE - TIRE ALL - 275/60R20 SL 115S BW AT
XEV	ACCESSORY - FLOOR LINER - CONTOURED
XEV	ACCESSORY - POWER DISTRIBUTION BOX
XEV	ACCESSORY - SWITCH PLATE - INTERIOR
XEV	ACCESSORY - WHEEL FLARES
XEV	BUMPER - RR, VAR 1
XEV	BUMPER FRT - CHANNEL, STEEL, BLACK
XEV	CARRIER - BED MOUNTED, SPARE TIRE
XEV	EQUIPMENT - SUPPLIER INSTALLED

RPO	Description
XEV	PLATE - SKID FRT
XEV	PLATE - SKID RR DIFFERENTIAL
XEV	PLATE - SKID TRANSFER CASE
XEV	PLATE - SKID, FUEL TANK
XEV	TIRE ALL - LT315/70R17 C 113/110 S BW OOR VAR1
XEV	TIRE SPARE - LT315/70R17 C 113/110 S BW OOR VAR 1
XEV	WHEEL - 17 X 8.5, J, ALUMINUM, DESIGN 8
XEV	WHEEL SPARE - 17 X 8.5, J, ALUMINUM, DESIGN 2
XEV	SALES PACKAGE - AEV VARIANT
Y19	ADJUSTER DRIVER SEAT - 8WAY, PWR RECLINE, PWR FORE/AFT, PWR HEIGHT, PWR TILT
Y19	HEATER SEAT FRT - DRVR & PASS
Y19	LUMBAR DRIVER - SEAT, POWER, 2 WAY
Y19	SALES PACKAGE - COMFORT AND CONVENIENCE
Y19	SALES PACKAGE - COLD WEATHER
Y5D	CRUISE CONTROL - AUTOMATIC, ADAPTIVE, WITH STOP/GO
Y5D	HEAD UP DISPLAY - WINDSHIELD
Y5D	SALES PACKAGE - COMFORT AND CONVENIENCE
Y5D	SENSOR INDICATOR - PEDESTRIAN DETECTION - REAR
Y5D	VISION - 360 VIEW, MONO, HD DIGITAL
Y5D	SALES PACKAGE - DRIVER AWARENESS 3
Y5W	PARK ASSIST - REAR
Y5W	REAR CROSS TRAFFIC - ALERT, BRAKING
Y5W	SALES PACKAGE - COMFORT AND CONVENIENCE
Y5W	SIDE ACTIVE SAFETY - OBSTACLE DETECTION ENHANCED, STEERING ASSIST
Y5W	SIDE ACTIVE SAFETY - OBSTACLE DETECTION ENHANCED, STEERING ASSIST, EXTENDED TRAILER VIEW
Y5W	SALES PACKAGE - DRIVER AWARENESS 1
Y5X	CRUISE CONTROL - AUTOMATIC, ADAPTIVE, WITH STOP/GO
Y5X	LOCK CYLINDER - RR COMPT
Y5X	SALES PACKAGE - DRIVER AWARENESS 1
Y5X	SENSOR INDICATOR - PEDESTRIAN DETECTION - REAR
Y5X	VISION - 360 VIEW, MONO, HD DIGITAL
Y5X	SALES PACKAGE - DRIVER AWARENESS 2
YF5	CERTIFICATION - EMISSION, CALIFORNIA

RPO	Description
Z2I	CHASSIS PACKAGE - 2 INCH LIFT
Z82	TRAILER PROVISIONS - SPECIAL EQUIPMENT, H.D.
ZL3	COMPARTMENT - STOWAGE TAILGATE
ZL3	CONSOLE - FRT COMPT, FLOOR, CUSTOM
ZL3	CRUISE CONTROL - AUTOMATIC, ELECTRONIC
ZL3	DEFOGGER - RR WINDOW, ELECTRIC
ZL3	EQUIPMENT - ASSIST, OPEN & CLOSE, TAILGATE
ZL3	HVAC SYSTEM - AIR CONDITIONER FRT, AUTO TEMP CONT, AUX TEMP CONT
ZL3	LAMP FRT FOG - FRT FOG, LED
ZL3	LOCK CONTROL RR CMPT - TAILGATE, REM CONT ELEC OPEN/CLOSE
ZL3	LOCK CYLINDER - RR COMPT
ZL3	STEERING COLUMN - TILT, TELESCOPING
ZL3	SUNSHADE - DRIVER, MIRROR, COVER, ILLUM, SLIDING, PASS, MIRROR, COVER, ILLUM, SLIDING
ZL3	WINDOW RR - FULL WIDTH, SLIDING, MANUAL
ZL4	ARM REST - RR SEAT, CENTER
ZL4	CHARGER - INDUCTIVE PORTABLE WIRELESS DEVICE
ZL4	HEADLAMPS - LED
ZL4	INTERIOR TRIM CONFIG - LEATHER, LEVEL 1, JET BLACK / ARTEMIS
ZL4	INTERIOR TRIM CONFIG - LEATHER, LEVEL 1.0, JET BLACK / ADRENALINE RED
ZL4	INTERIOR TRIM CONFIG - VINYL, LEVEL 2, JET BLACK
ZL4	LAMP - TAIL & STOP, SPECIAL
ZL4	LAMP SYSTEM - DAYTIME RUNNING, LED
ZL4	MEMORY - SEAT ADJUSTER, MIRROR, POWER, DRIVER, PERSONALIZATION
ZL4	POCKET - FRONT SEAT BACK, DRIVER
ZL4	RECEPTACLE PUBX - ELECTRICAL, 110 VOLT
ZL4	RECEPTCL FRT CNSL RR - ELECTRICAL, 110 VOLT
ZL4	RECPT USB FLR CNSL R - DUAL, CHARGE
ZL4	SALES PACKAGE - CONVENIENCE II
ZL4	SALES PACKAGE - SAFETY PACKAGE VAR. 1
ZL4	STEERING WHEEL HEAT - AUTOMATIC
ZL4	VENTILATED SEAT FRT - DRVR & PASS
ZL6	AXLE POSITRACTION - LIMITED SLIP
ZL6	INDICATOR - TRAILER INFORMATION
ZL6	TRAILER PROVISIONS - SPECIAL EQUIPMENT, H.D.
ZL6	SALES PACKAGE - TRAILER INTEGRATION
ZR2	CHASSIS PACKAGE - HIGH WIDER PERFORMANCE, 4 X 4 SPORT

Section 2

Body Systems

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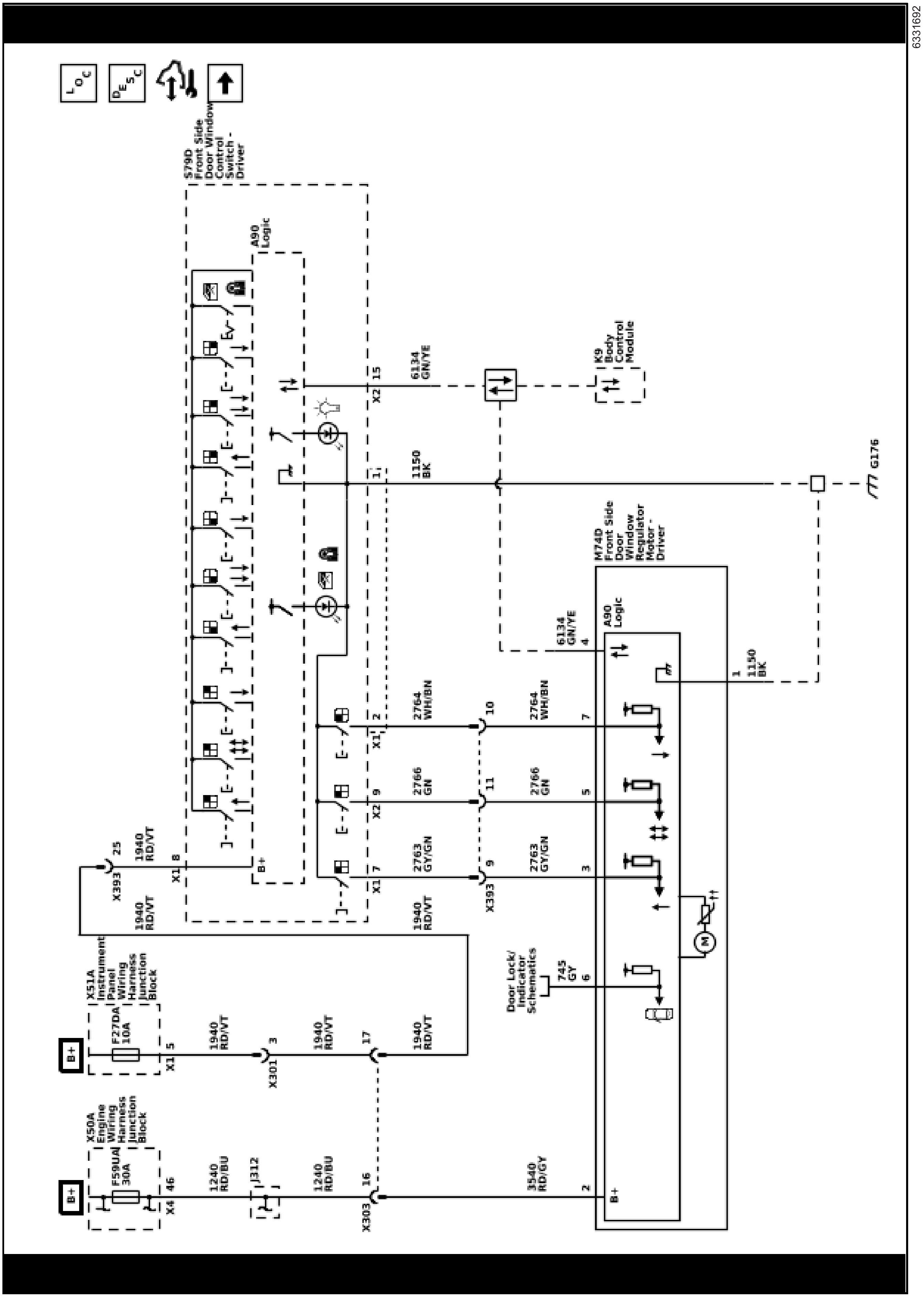
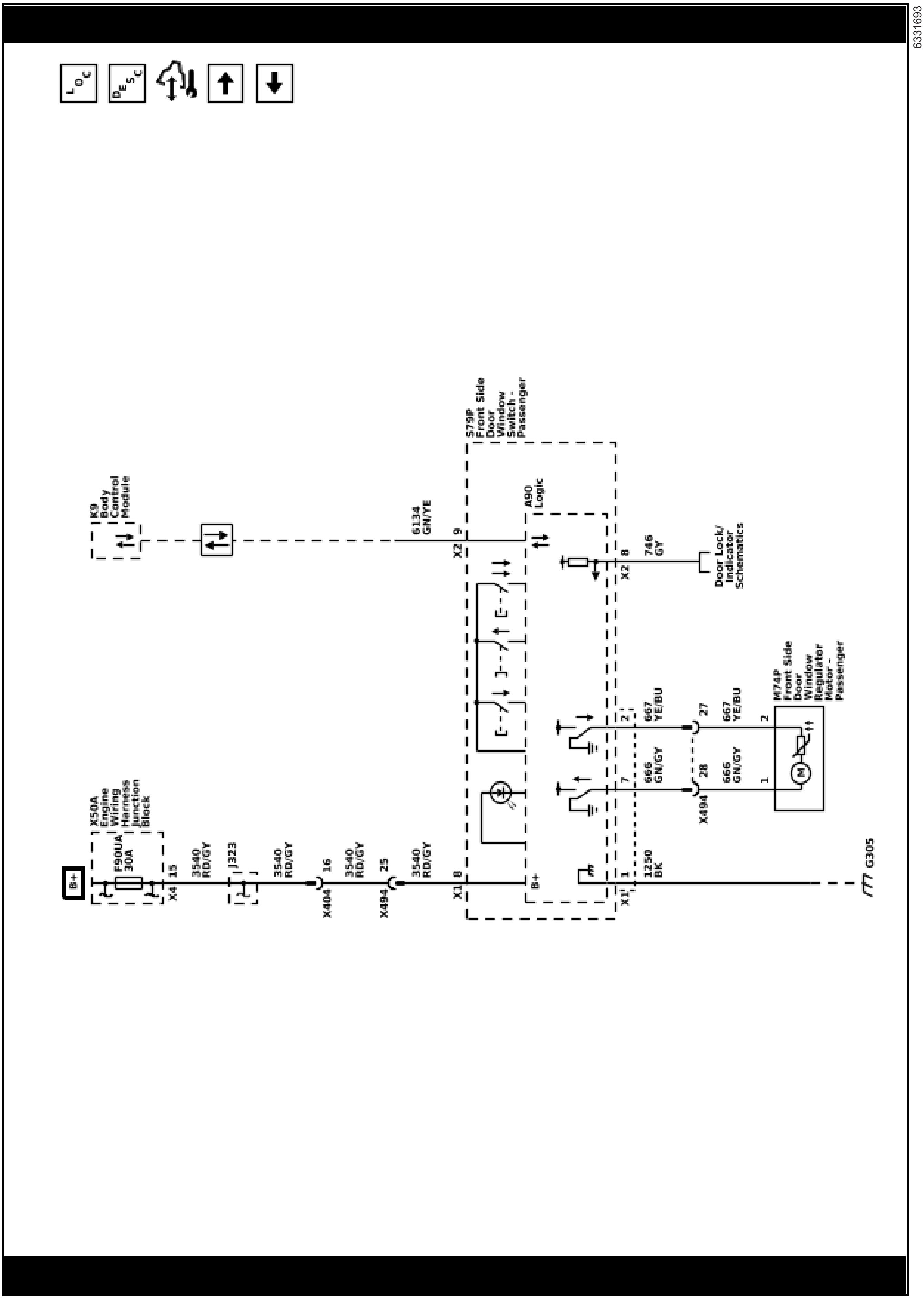
Fixed and Moveable Windows

Schematic and Routing Diagrams

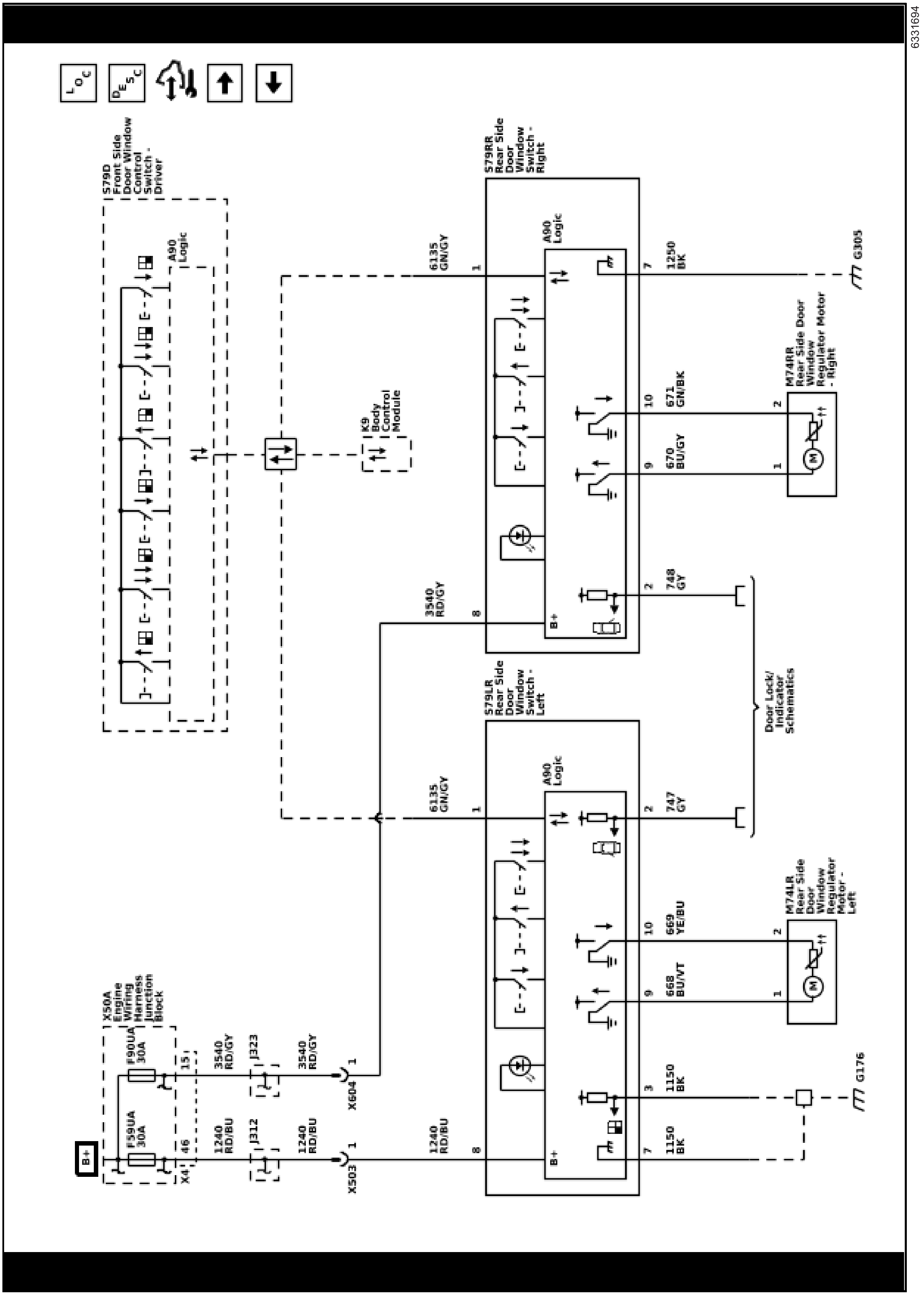
Moveable Window Schematics (Driver Window (AXG))


6331692
LOC
DESC
S79D Front Side Door Window Control Switch - Driver
A90 Logic
K9 Body Control Module
M74D Front Side Door Window Regulator Motor - Driver
A90 Logic
X51A Instrument Panel Wiring Harness Junction Block
F27DA 10A
X50A Engine Wiring Harness Junction Block
F59UA 30A
B+
B+
X1 5
X4 46
1940 RD/VT
1240 RD/BU
J312
X301 3
X303 16
17
1940 RD/VT
3540 RD/GY
2
B+
X393 25
X1 8
B+
X1 7
X2 9
X1 2
X2 15
1
2763 GY/GN
2766 GN
2764 WH/BN
6134 GN/YE
1150 BK
X393 9
11
10
3
5
7
4
1
6134 GN/YE
1150 BK
G176
Door Lock/ Indicator Schematics
745 GY
6
M

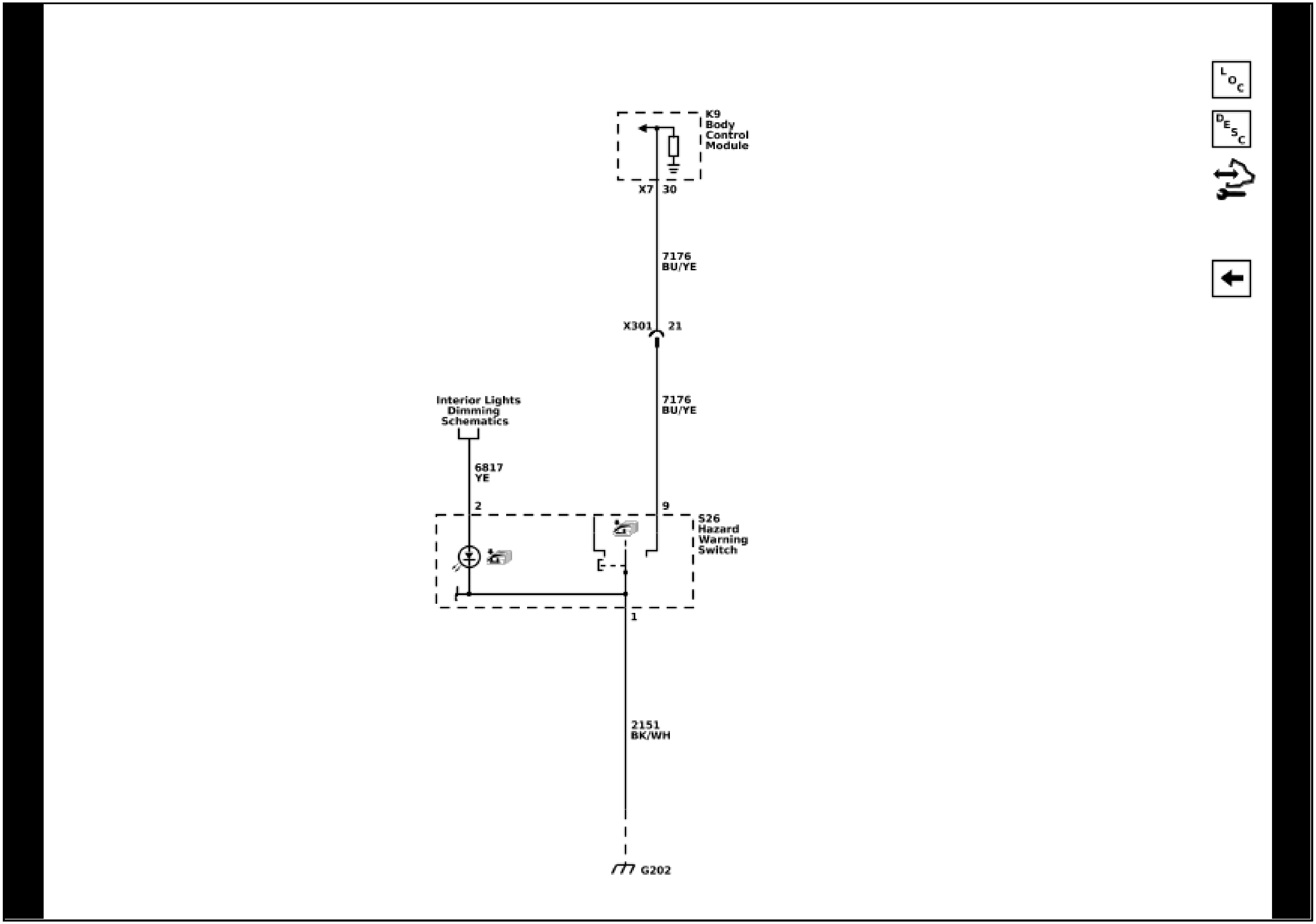
Moveable Window Schematics (Passenger Window)


6331693
LOC
DESC
B+
X50A Engine Wiring Harness Junction Block
F90UA 30A
X4 15
3540 RD/GY
J323
3540 RD/GY
X404 16
3540 RD/GY
X494 25
3540 RD/GY
X1 8
B+
K9 Body Control Module
6134 GN/YE
X2 9
S79P Front Side Door Window Switch - Passenger
A90 Logic
X2 8
746 GY
Door Lock/ Indicator Schematics
7
666 GN/GY
2
667 YE/BU
X494 28
666 GN/GY
27
667 YE/BU
1
2
M
M74P Front Side Door Window Regulator Motor - Passenger
X1 1
1250 BK
G305

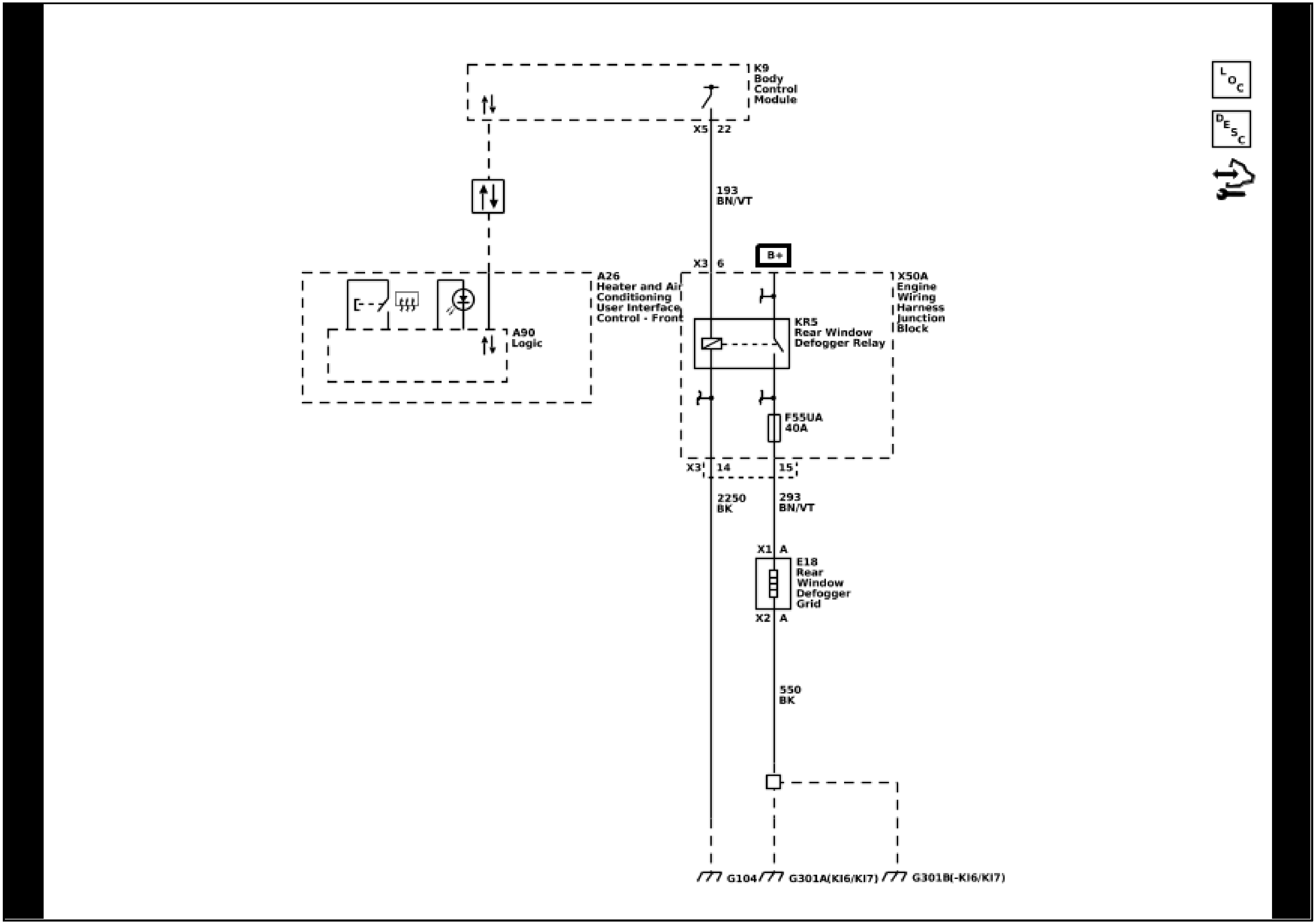
Moveable Window Schematics (Rear windows)


6331694
B+
F59UA 30A
F90UA 30A
X50A Engine Wiring Harness Junction Block
X4
46
15
1240 RD/BU
3540 RD/GY
J312
J323
X503
X604
1
S79D Front Side Door Window Control Switch - Driver
A90 Logic
K9 Body Control Module
S79LR Rear Side Door Window Switch - Left
S79RR Rear Side Door Window Switch - Right
6135 GN/GY
8
B+
2
747 GY
748 GY
3
1150 BK
7
9
668 BU/VT
10
669 YE/BU
670 BU/GY
671 GN/BK
1250 BK
M74LR Rear Side Door Window Regulator Motor - Left
M74RR Rear Side Door Window Regulator Motor - Right
M
G176
G305
Door Lock/ Indicator Schematics

Moveable Window Schematics (Global Window Express Down Switch (WLD))


K9
Body
Control
Module
X7
30
7176
BU/YE
X301
21
7176
BU/YE
Interior Lights
Dimming
Schematics
6817
YE
2
9
S26
Hazard
Warning
Switch
1
2151
BK/WH
G202
6331695

Defogger Schematics (Defogger (C49))


K9
Body
Control
Module
X5 22
193
BN/VT
B+
X3 6
X50A
Engine
Wiring
Harness
Junction
Block
KR5
Rear Window
Defogger Relay
A26
Heater and Air
Conditioning
User Interface
Control - Front
A90
Logic
F55UA
40A
X3 14
15
2250
BK
293
BN/VT
X1 A
E18
Rear
Window
Defogger
Grid
X2 A
550
BK
G104
G301A(KI6/KI7)
G301B(-KI6/KI7)
6331691

Description and Operation

Power Windows Description and Operation

Power Windows System Components

The power window system consists of the following components:

- Driver front side door window control switch
- Passenger front side door window control switch
- Left rear side door window switch
- Right rear side door window switch
- Global window down switch
- Window motors in each of the doors
- Body control module (BCM)

Driver Express Up and Express Down Power Window Motors

The driver door contains a smart window motor that will detect excessive resistance while performing the express up function and automatically reverse direction to prevent injury to any occupants that may become trapped between the closing window and the door frame. The automatic reverse safety feature can be overridden by pulling and holding the window switch.

The logic circuit within the window motor monitors the up, down and express signal circuits which are normally equal to B+ voltage. When a switch is used on the front side door window control switch, the contacts close causing a voltage drop within the appropriate signal circuit. The window motor will detect the voltage drop and will command the window to move in the direction requested.

The driver front side door window control switch communicates to the BCM by a serial data circuit. When the driver wishes to control the passenger windows, the driver will use the appropriate switch on the driver front side door window control switch. When this switch is used, a serial data message is sent to the BCM requesting the passenger window motor command, the BCM will then send a serial data message to the passenger window motor which will then move in the direction requested.

Passenger, Left Rear, Right Rear Express Down Window Motors

For the passenger, and rear doors, when their window switch is pressed in the down position, battery positive voltage is applied to their respective window motor control circuit and ground to the other window motor control circuit causing that window to open. When the individual window switch is pulled in the up position, voltage and ground is applied to the window motor in the opposite direction causing that window to close. The return path to ground is supplied through the inactive control circuit being normally grounded through the window switch.

Each of the passenger window switches communicates to the BCM by a serial data circuit. When the driver wishes to control the left rear or right rear window, the driver will use the appropriate switch on the driver front side door window control switch. When this switch is used, a serial data message is sent to the BCM requesting a window motor command, the BCM will then send a serial data message to the appropriate rear side door window switch which will then command that window to move in the direction requested.

Lockout Switch Feature

The driver front side door window control switch contains a window lockout switch, when the driver presses the window lockout switch, a serial data message is sent to the BCM which will send a disable command to the rear side door window switches, deactivating them. The rear windows will still function normally from the switches on the driver front side door window control switch.

Rear Window Defogger Description and Operation

Rear Window Defogger System Components

The rear window defogger system consists of the following components:

- Body Control Module
- Front Heater and Air Conditioning User Interface Control
- Engine Wiring Harness Junction Block (Contains PCB Rear Defogger Relay)
- Rear Defogger Grid
- 40A Fuse

Rear Window Defogger Operation

The rear defog control system utilizes a single zone backlight design, driven with a single relay configuration. A switch for the customer to control the system is provided within the front heater and air conditioning user interface control. Also included in the front heater and air conditioning user interface control is an indicator to inform the customer with the current state of the system. The system is only operational when engine is running or during remote start.

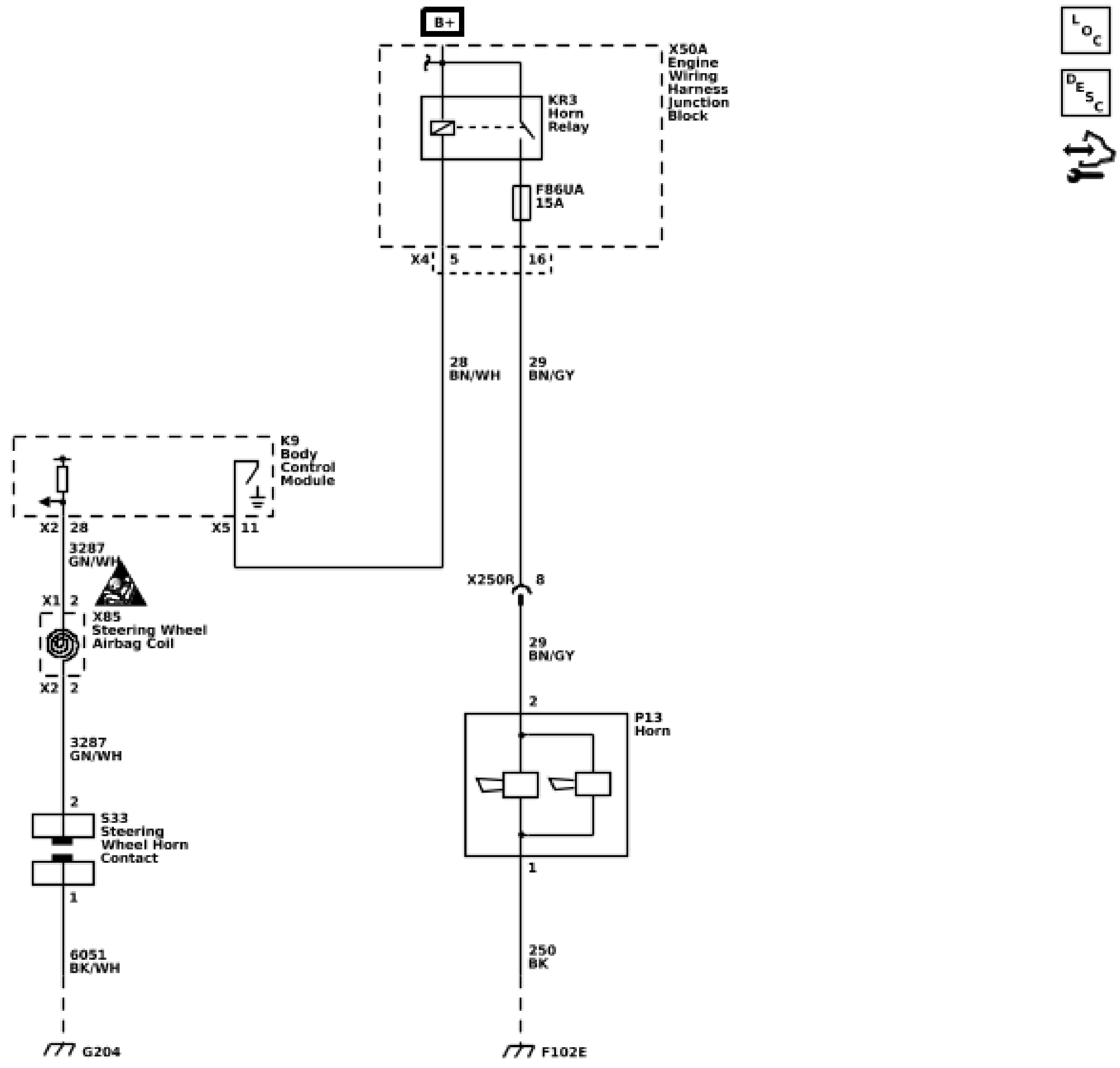
Pressing the heated rear window switch causes the front heater and air conditioning user interface control to send a serial data message to the body control module requesting rear window defog operation. The body control module upon receipt of the serial data message will provide voltage to the coil side of the rear defogger relay, this will energize the relay causing the relay switch contacts to close allowing B+ voltage to flow through the rear defogger grid control circuit to the rear defogger grid.

When the rear heated rear window switch is pressed and the engine is running, the rear window defogger grid will activate and will turn off automatically depending upon the vehicle speed (refer to owner’s manual for rear window defogger operation cycles)

Horns and Pedestrian Alerts

Schematic and Routing Diagrams

Horn Schematics (Horns)


B+
X50A
Engine
Wiring
Harness
Junction
Block
KR3
Horn
Relay
F86UA
15A
X4 5
16
28
BN/WH
29
BN/GY
K9
Body
Control
Module
X2 28
X5 11
3287
GN/WH
X1 2
X85
Steering Wheel
Airbag Coil
X2 2
3287
GN/WH
2
S33
Steering
Wheel Horn
Contact
1
6051
BK/WH
G204
X250R 8
29
BN/GY
2
P13
Horn
1
250
BK
F102E

6331696

Description and Operation

Horns System Description and Operation

System Description

The horn system consists of the following components:

- HORN fuse
- Engine wiring harness junction block (contains horn PCB relay
- Steering wheel horn contact
- Steering wheel airbag coil
- Horn
- Body control module (BCM)

System Operation

The vehicle horn system is activated under the following conditions:

- When the horn switch is depressed
- The BCM commands the horns ON under any of the following conditions:
  - When the content theft deterrent system detects a vehicle intrusion.
  - When the panic button is depressed on the remote control door lock transmitter—For further information refer to Keyless Entry System Description and Operation.
  - When the keyless entry system is used to lock the vehicle, a horn chirp may sound to notify the driver that the vehicle has been locked. The notification feature may be enabled or disabled through personalization. For further information refer to Keyless Entry System Description and Operation .
  - When the OnStar® system is used to sound the horns if equipped—For further information, refer to OnStar Description and Operation.

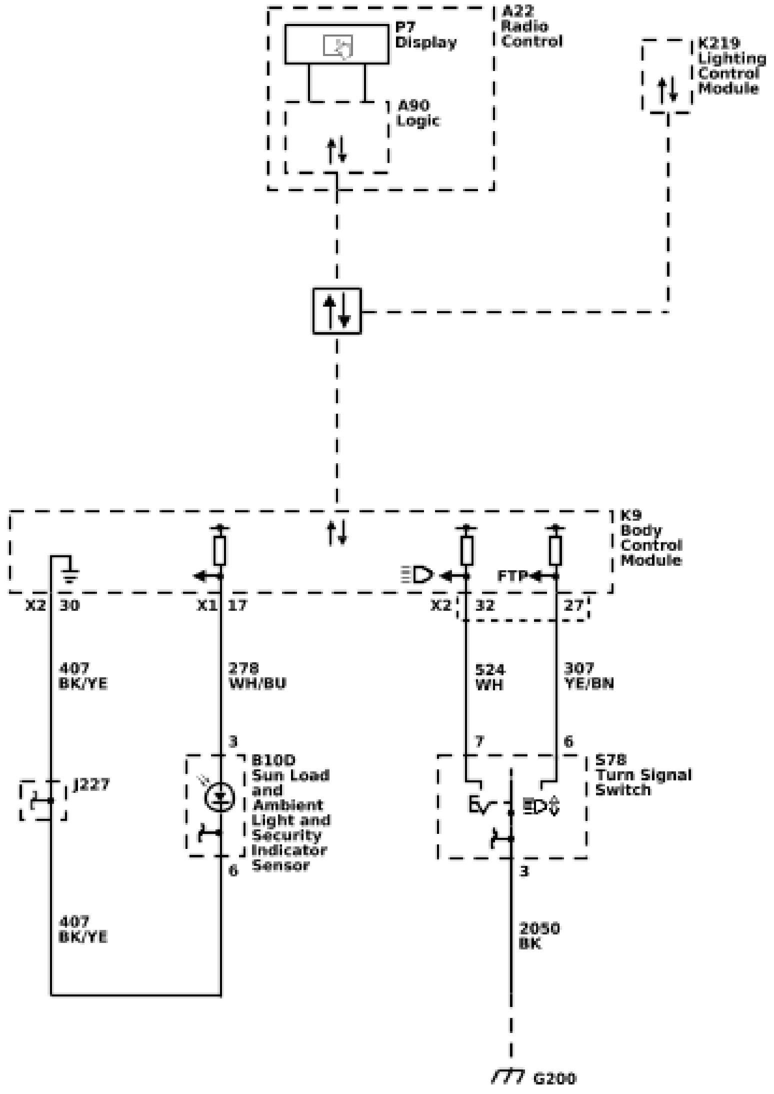
Circuit Operation

Battery positive voltage is applied at all times to the horn relay coil and the horn relay switch. Pressing either of the horn switches applies ground to the horn relay control circuit. The BCM may also apply ground to the horn relay control circuit as described above. When the horn relay control circuit is grounded, the horn relay is energized and battery positive voltage is applied to the horns through the horn control circuit. The horns sound as long as ground is applied to the horn relay control circuit.

Lighting

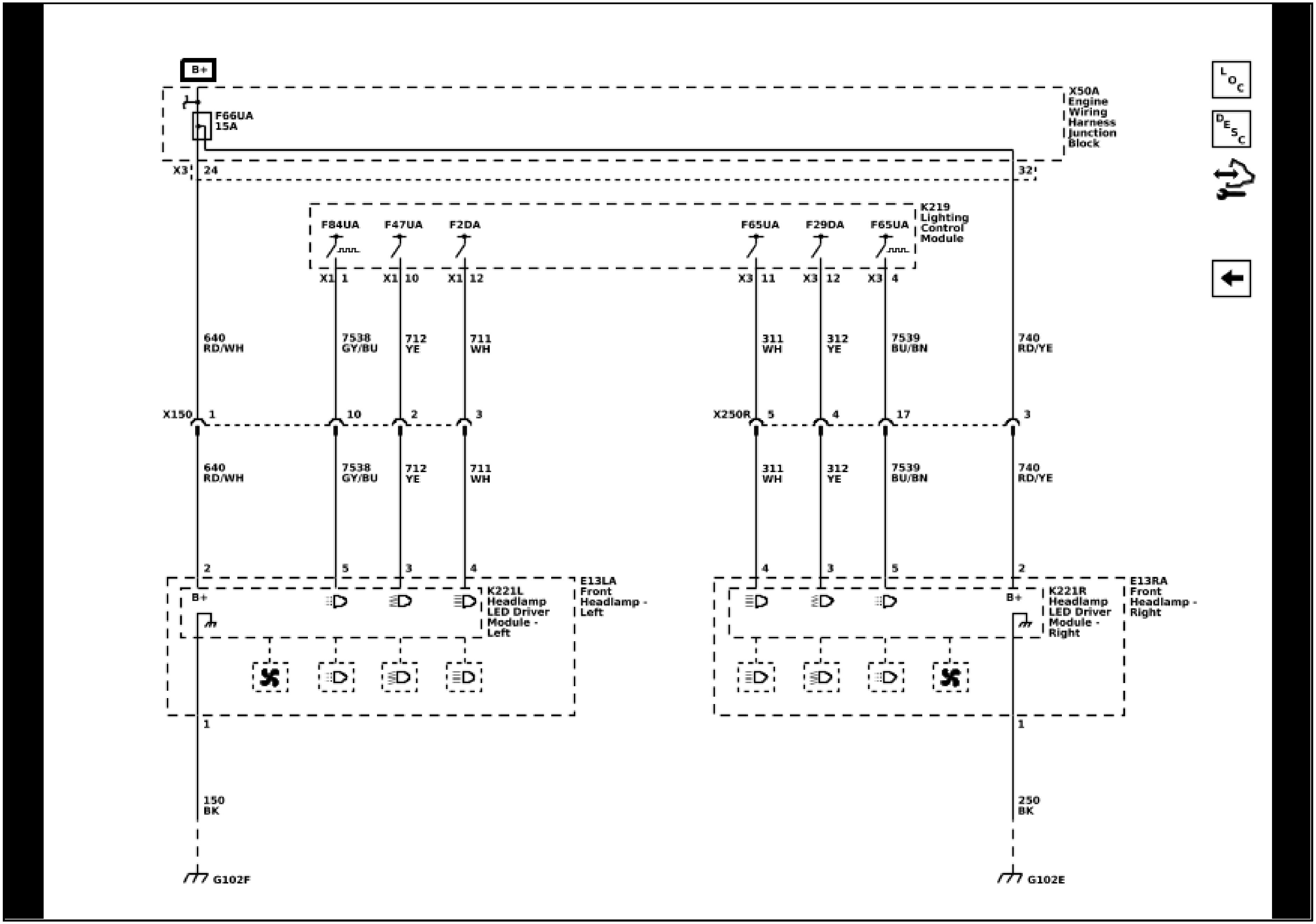
Schematic and Routing Diagrams

Headlights/Daytime Running Lights (DRL) Schematics (Controls and Indicators)


A22
Radio
Control
P7
Display
A90
Logic
K219
Lighting
Control
Module
K9
Body
Control
Module
FTP
X2 30
X1 17
X2 32
27
407
BK/YE
278
WH/BU
524
WH
307
YE/BN
J227
3
B10D
Sun Load
and
Ambient
Light and
Security
Indicator
Sensor
6
7
6
S78
Turn Signal
Switch
3
2050
BK
407
BK/YE
G200

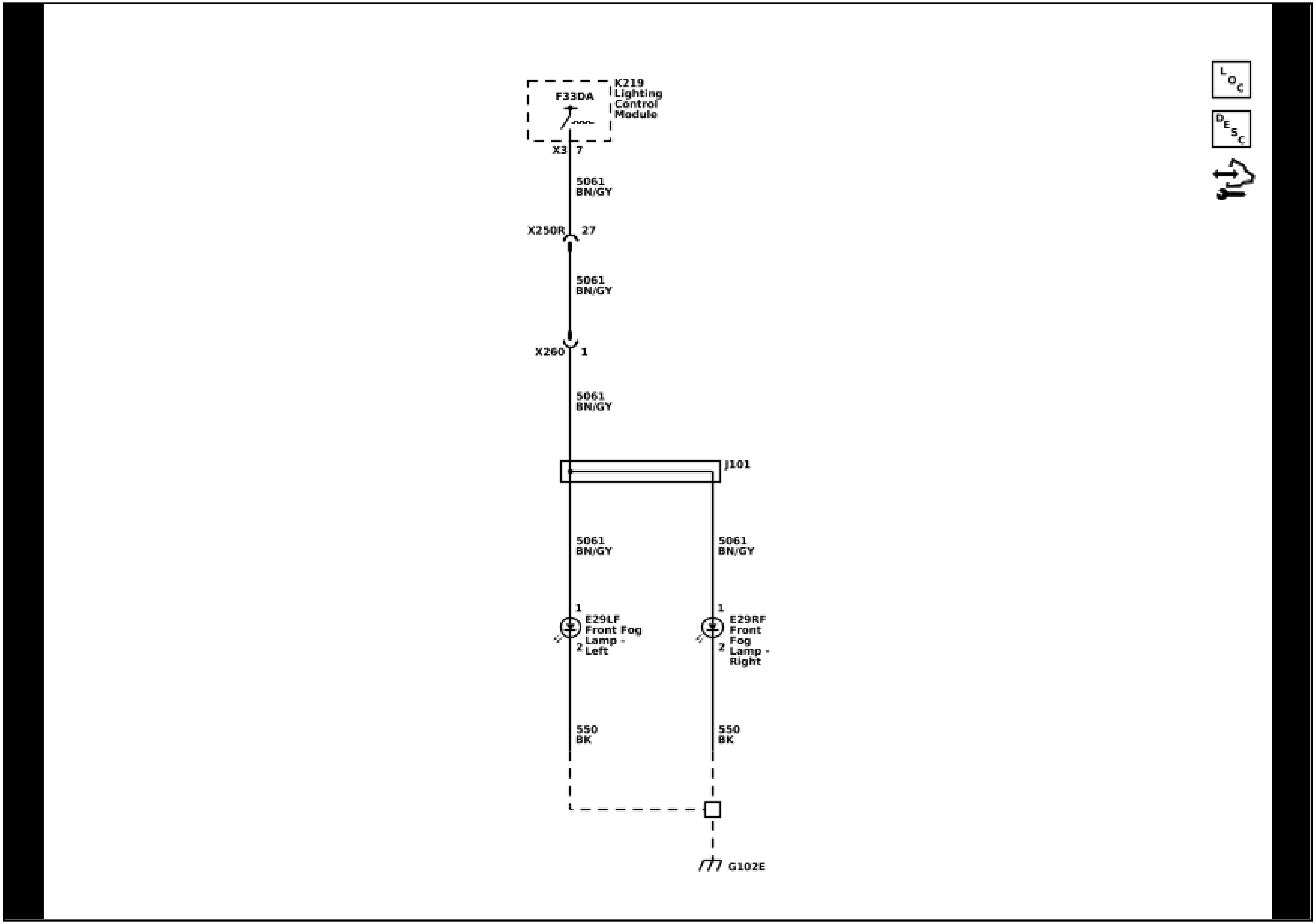
6331697

Headlights/Daytime Running Lights (DRL) Schematics (Low Beam, High Beam, and Daytime Running Lights)

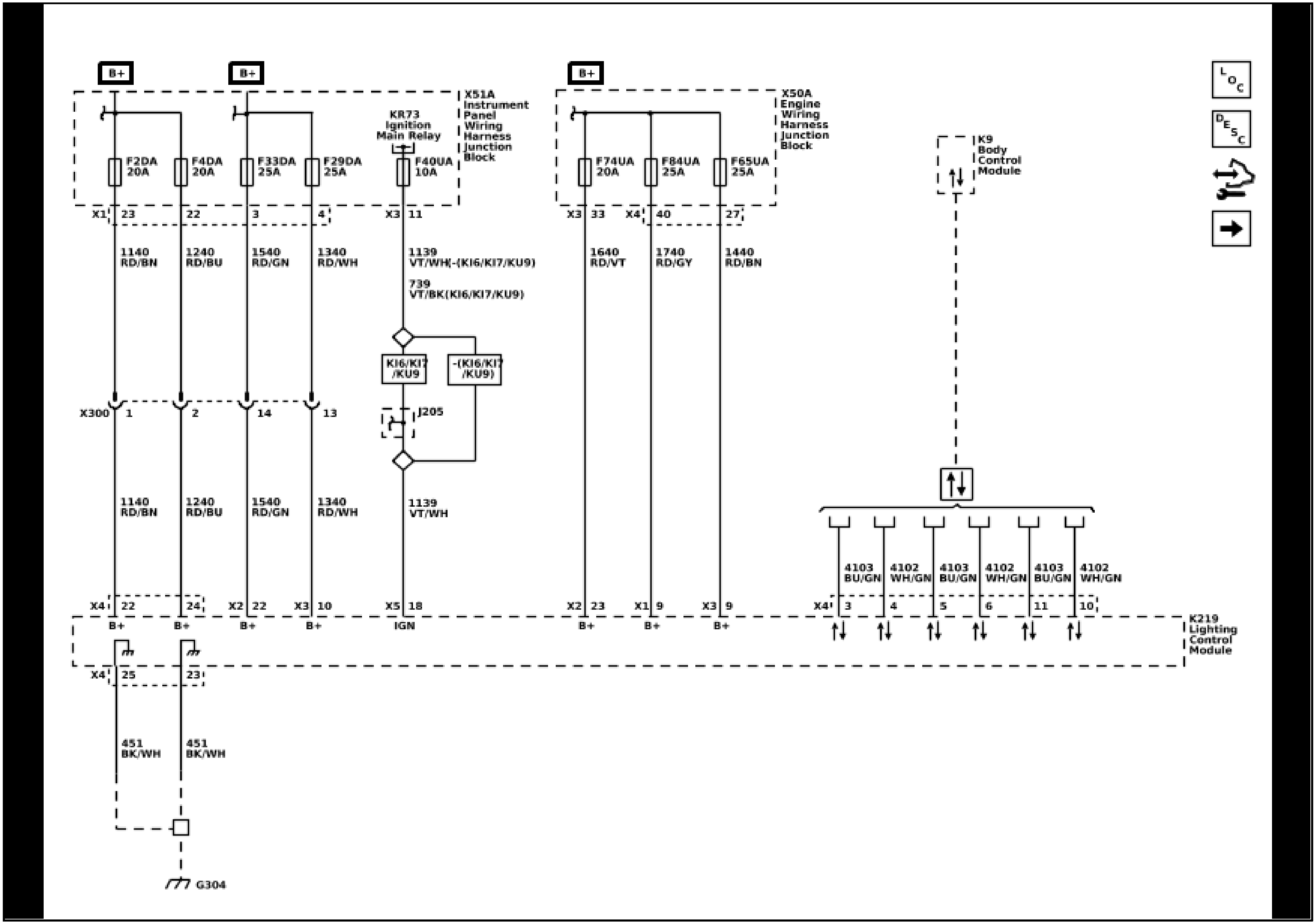

B+
F66UA
15A
X50A
Engine
Wiring
Harness
Junction
Block
X3 24
32
K219
Lighting
Control
Module
F84UA
F47UA
F2DA
F65UA
F29DA
F65UA
X1 1
X1 10
X1 12
X3 11
X3 12
X3 4
640
RD/WH
7538
GY/BU
712
YE
711
WH
311
WH
312
YE
7539
BU/BN
740
RD/YE
X150 1
10
2
3
X250R 5
4
17
3
2
5
3
4
4
3
5
2
B+
K221L
Headlamp
LED Driver
Module -
Left
E13LA
Front
Headlamp -
Left
B+
K221R
Headlamp
LED Driver
Module -
Right
E13RA
Front
Headlamp -
Right
1
150
BK
G102F
1
250
BK
G102E

6331698

Fog Lights Schematics (Fog Lamps (T40))

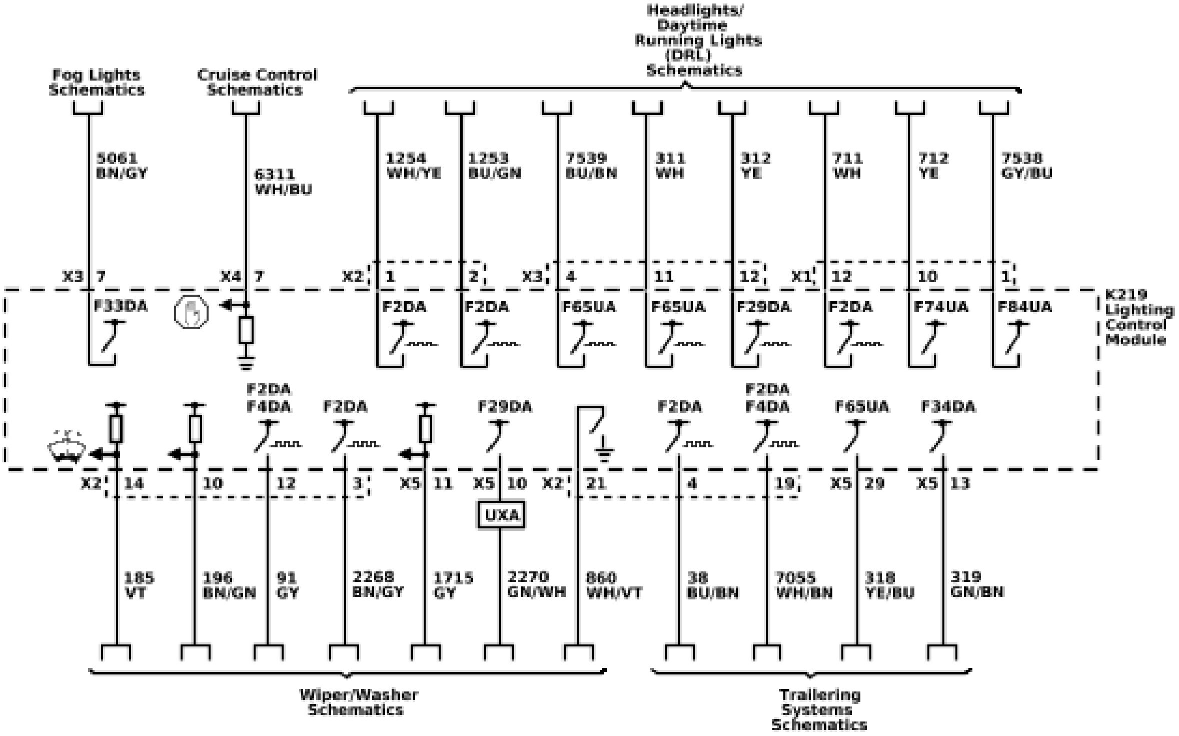

K219
Lighting
Control
Module
F33DA
X3 7
5061
BN/GY
X250R 27
5061
BN/GY
X260 1
5061
BN/GY
J101
5061
BN/GY
5061
BN/GY
1
E29LF
Front Fog
Lamp -
Left
2
1
E29RF
Front
Fog
Lamp -
Right
2
550
BK
550
BK
G102E
6331713

Exterior Lights Schematics (Lighting Control Module Power, Ground, and Serial Data)


B+
B+
B+
X51A Instrument Panel Wiring Harness Junction Block
KR73 Ignition Main Relay
F2DA 20A
F4DA 20A
F33DA 25A
F29DA 25A
F40UA 10A
X1 23
22
3
4
X3 11
1140 RD/BN
1240 RD/BU
1540 RD/GN
1340 RD/WH
1139 VT/WH-(KI6/KI7/KU9)
739 VT/BK(KI6/KI7/KU9)
KI6/KI7 /KU9
-(KI6/KI7 /KU9)
J205
X300 1
2
14
13
1140 RD/BN
1240 RD/BU
1540 RD/GN
1340 RD/WH
1139 VT/WH
X4 22
24
X2 22
X3 10
X5 18
B+
B+
B+
B+
IGN
X4 25
23
451 BK/WH
451 BK/WH
G304
X50A Engine Wiring Harness Junction Block
F74UA 20A
F84UA 25A
F65UA 25A
X3 33
X4 40
27
1640 RD/VT
1740 RD/GY
1440 RD/BN
X2 23
X1 9
X3 9
B+
B+
B+
K9 Body Control Module
4103 BU/GN
4102 WH/GN
4103 BU/GN
4102 WH/GN
4103 BU/GN
4102 WH/GN
X4 3
4
5
6
11
10
K219 Lighting Control Module
LOC
DESC

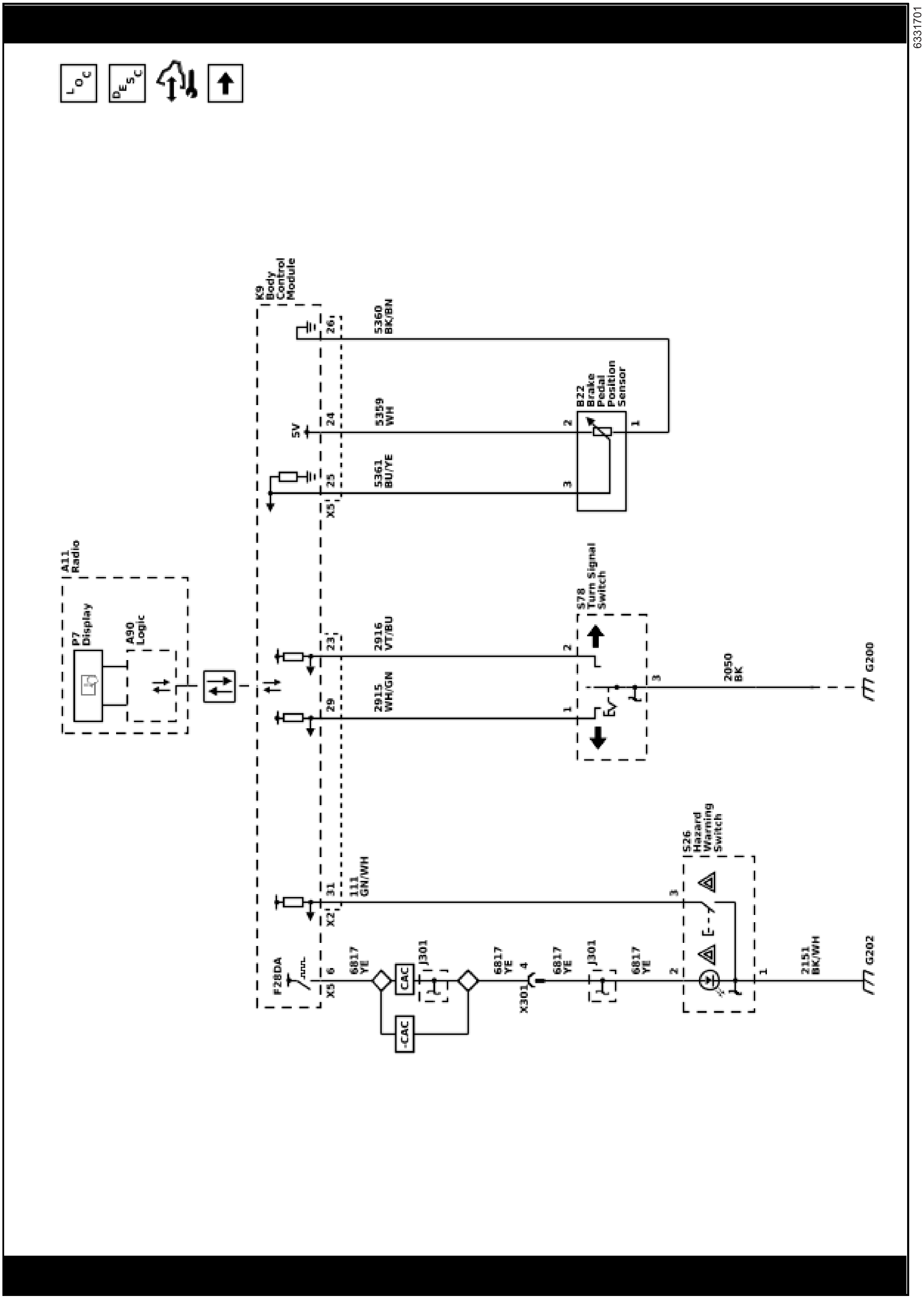
6331699

Exterior Lights Schematics (Lighting Control Module Subsystem References)

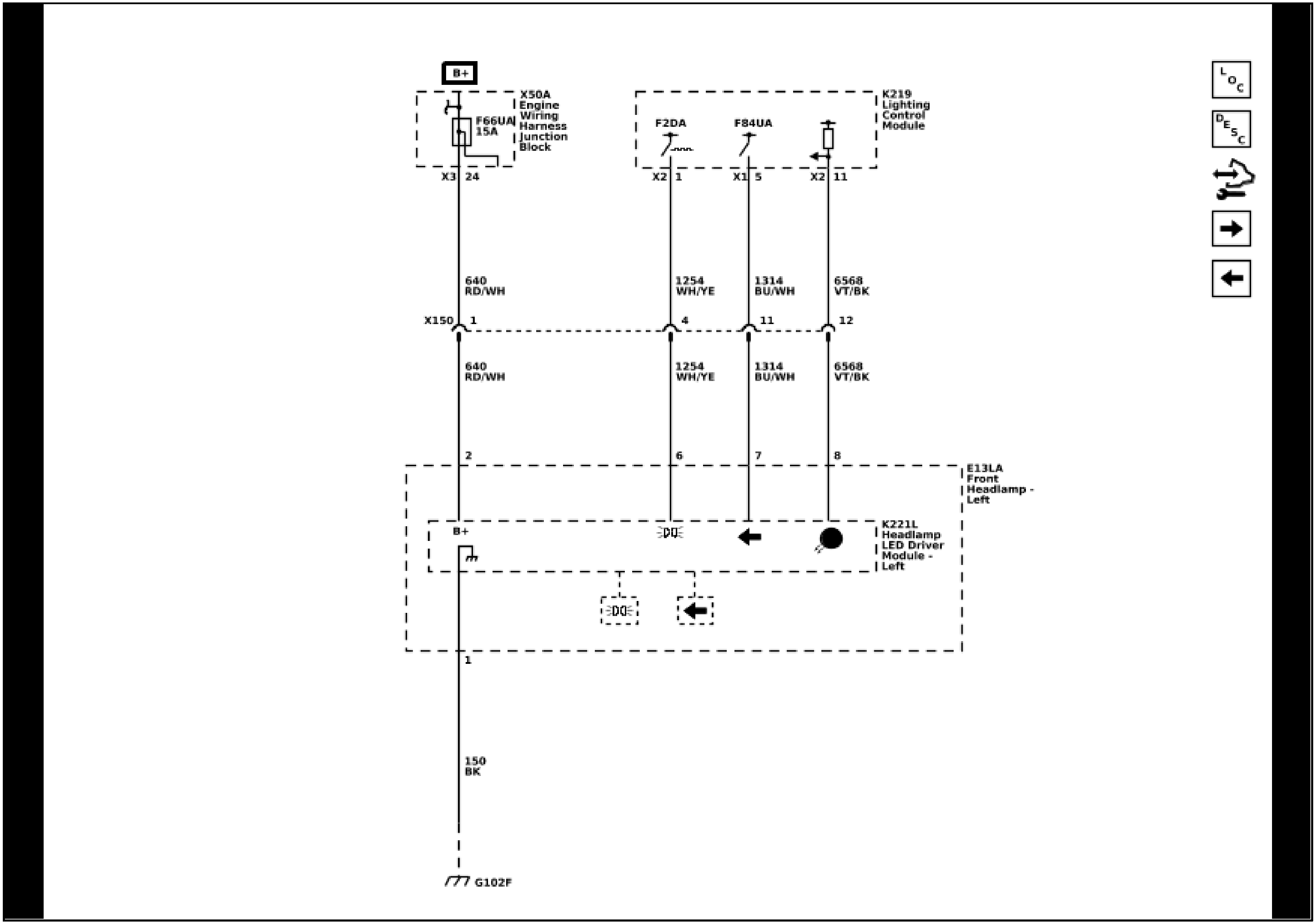

Fog Lights Schematics
Cruise Control Schematics
Headlights/ Daytime Running Lights (DRL) Schematics
5061 BN/GY
6311 WH/BU
1254 WH/YE
1253 BU/GN
7539 BU/BN
311 WH
312 YE
711 WH
712 YE
7538 GY/BU
X3 7
X4 7
X2 1
2
X3 4
11
12
X1 12
10
1
F33DA
F2DA
F2DA
F65UA
F65UA
F29DA
F2DA
F74UA
F84UA
K219 Lighting Control Module
F2DA F4DA
F2DA
F29DA
F2DA
F2DA F4DA
F65UA
F34DA
X2 14
10
12
3
X5 11
X5 10
X2 21
4
19
X5 29
X5 13
UXA
185 VT
196 BN/GN
91 GY
2268 BN/GY
1715 GY
2270 GN/WH
860 WH/VT
38 BU/BN
7055 WH/BN
318 YE/BU
319 GN/BN
Wiper/Washer Schematics
Trailering Systems Schematics

6331700

Exterior Lights Schematics (Exterior Light Controls and Indicators)

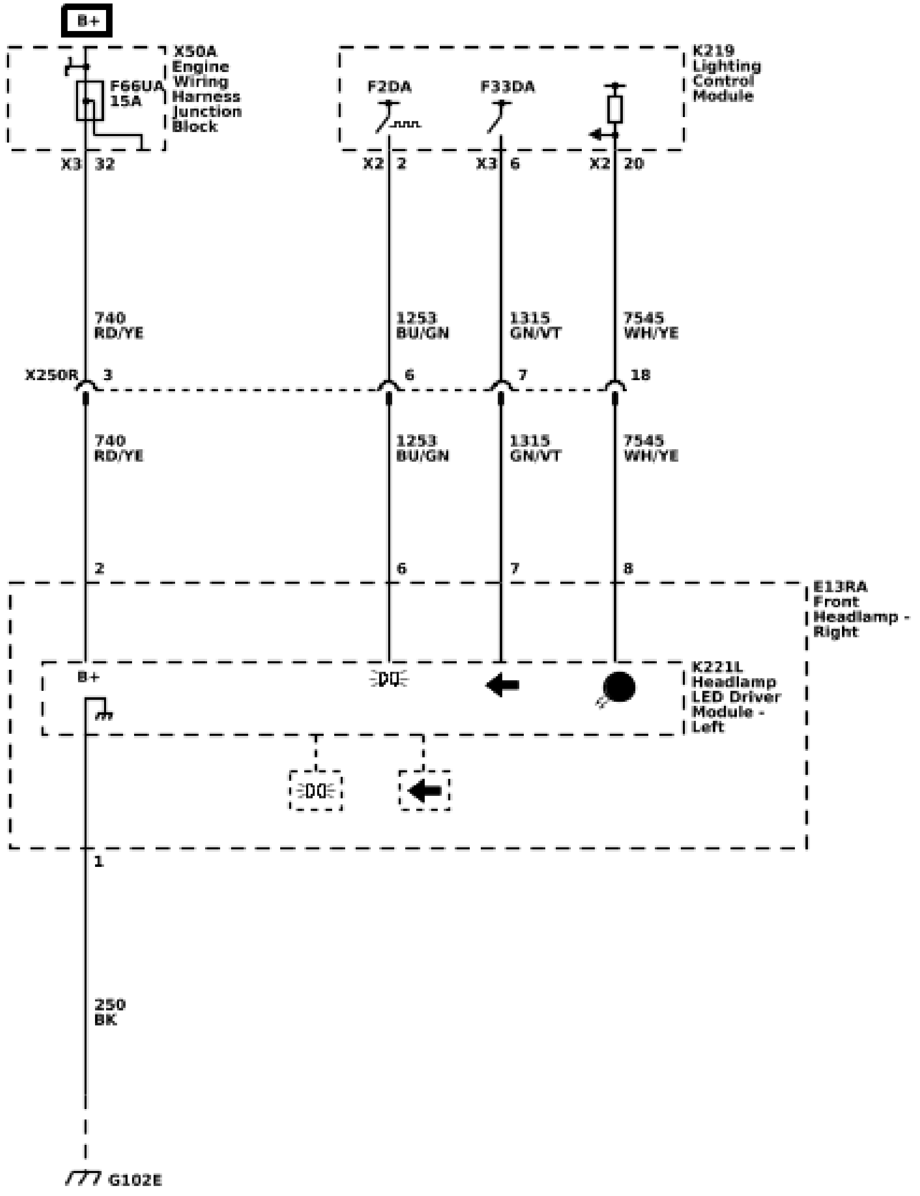

6331701
A11 Radio
P7 Display
A90 Logic
K9 Body Control Module
26
5360 BK/BN
5V
24
5359 WH
25
5361 BU/YE
X5
B22 Brake Pedal Position Sensor
2
3
1
23
2916 VT/BU
29
2915 WH/GN
S78 Turn Signal Switch
2
1
3
2050 BK
G200
F28DA
X5 6
31
X2
111 GN/WH
6817 YE
CAC
-CAC
J301
6817 YE
4
X301
6817 YE
J301
6817 YE
2
S26 Hazard Warning Switch
3
1
2151 BK/WH
G202

Exterior Lights Schematics (Front Left Turn and Park Lamps)


B+
X50A Engine Wiring Harness Junction Block
F66UA 15A
X3 24
K219 Lighting Control Module
F2DA
F84UA
X2 1
X1 5
X2 11
640 RD/WH
1254 WH/YE
1314 BU/WH
6568 VT/BK
X150 1
4
11
12
640 RD/WH
1254 WH/YE
1314 BU/WH
6568 VT/BK
2
6
7
8
E13LA Front Headlamp - Left
B+
K221L Headlamp LED Driver Module - Left
1
150 BK
G102F

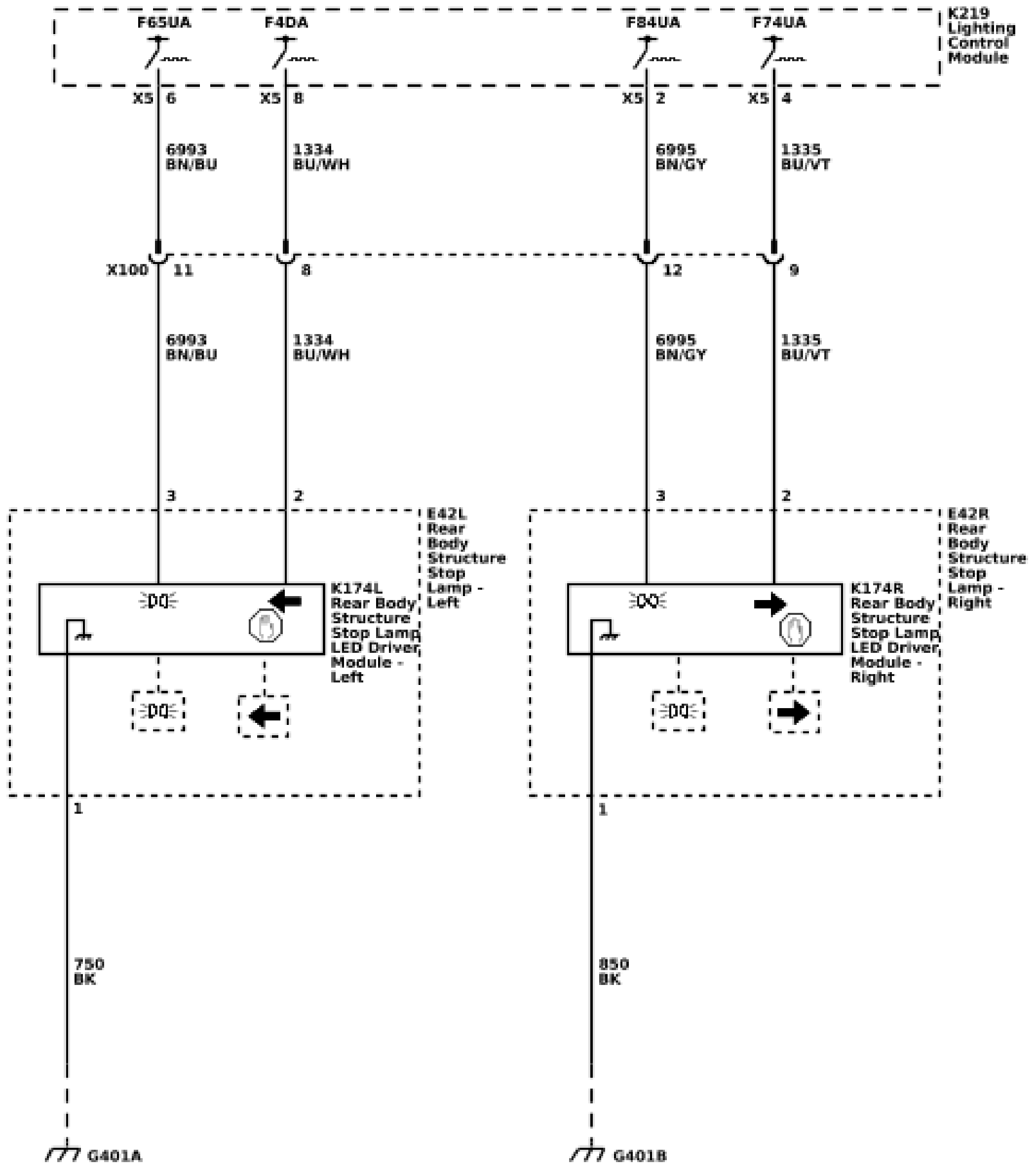
6331702

Exterior Lights Schematics (Front Right Turn and Park Lamps)

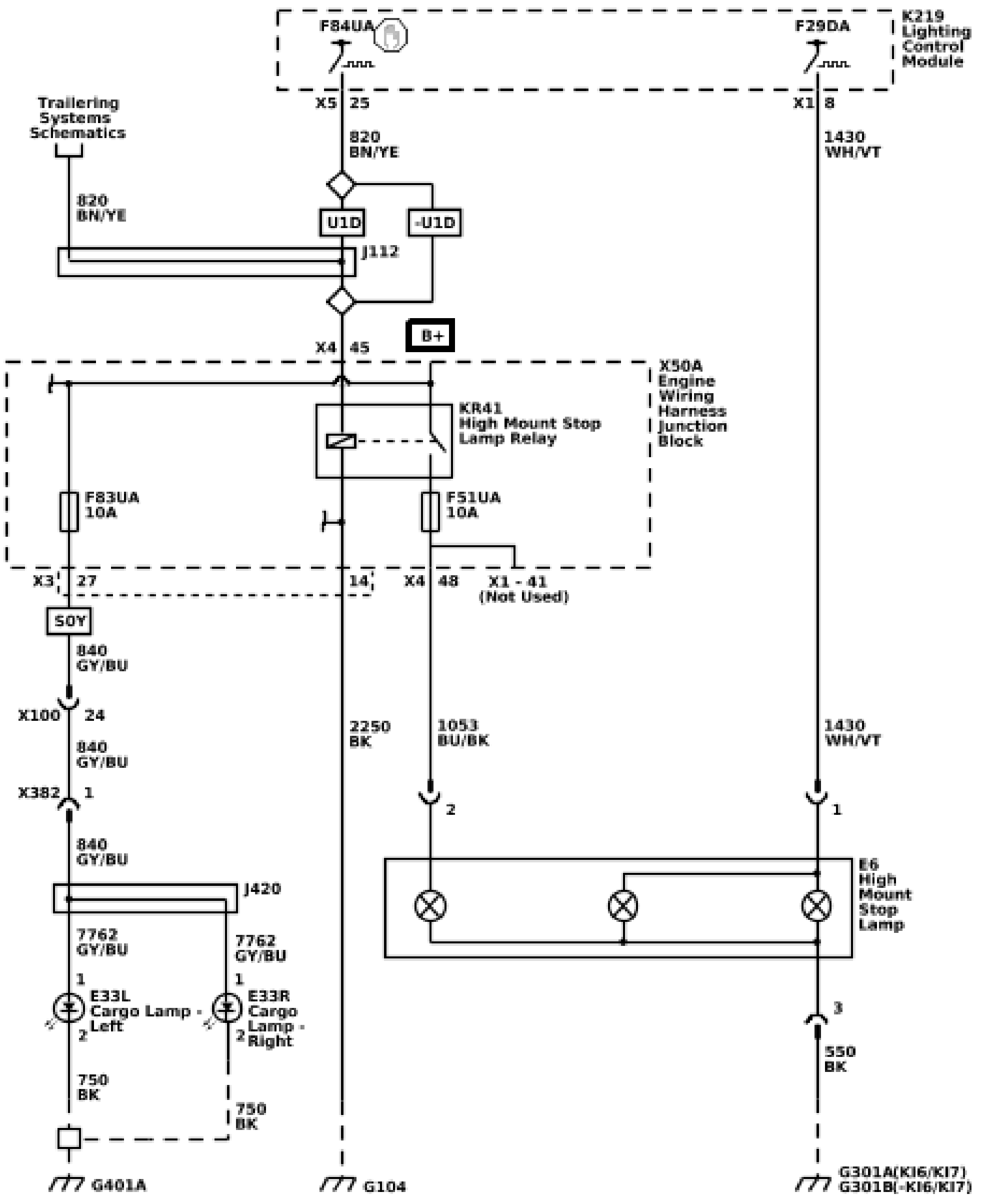

B+
X50A Engine Wiring Harness Junction Block
F66UA 15A
X3 32
K219 Lighting Control Module
F2DA
F33DA
X2 2
X3 6
X2 20
740 RD/YE
1253 BU/GN
1315 GN/VT
7545 WH/YE
X250R 3
6
7
18
740 RD/YE
1253 BU/GN
1315 GN/VT
7545 WH/YE
2
6
7
8
E13RA Front Headlamp - Right
B+
K221L Headlamp LED Driver Module - Left
1
250 BK
G102E

6331703

Exterior Lights Schematics (Rear Body Structure Stop, Turn, and Running Lamps)


F65UA
F4DA
F84UA
F74UA
K219
Lighting
Control
Module
X5 6
X5 8
X5 2
X5 4
6993
BN/BU
1334
BU/WH
6995
BN/GY
1335
BU/VT
X100 11
8
12
9
3
2
E42L
Rear
Body
Structure
Stop
Lamp -
Left
K174L
Rear Body
Structure
Stop Lamp
LED Driver
Module -
Left
E42R
Rear
Body
Structure
Stop
Lamp -
Right
K174R
Rear Body
Structure
Stop Lamp
LED Driver
Module -
Right
1
750
BK
850
BK
G401A
G401B
6331704

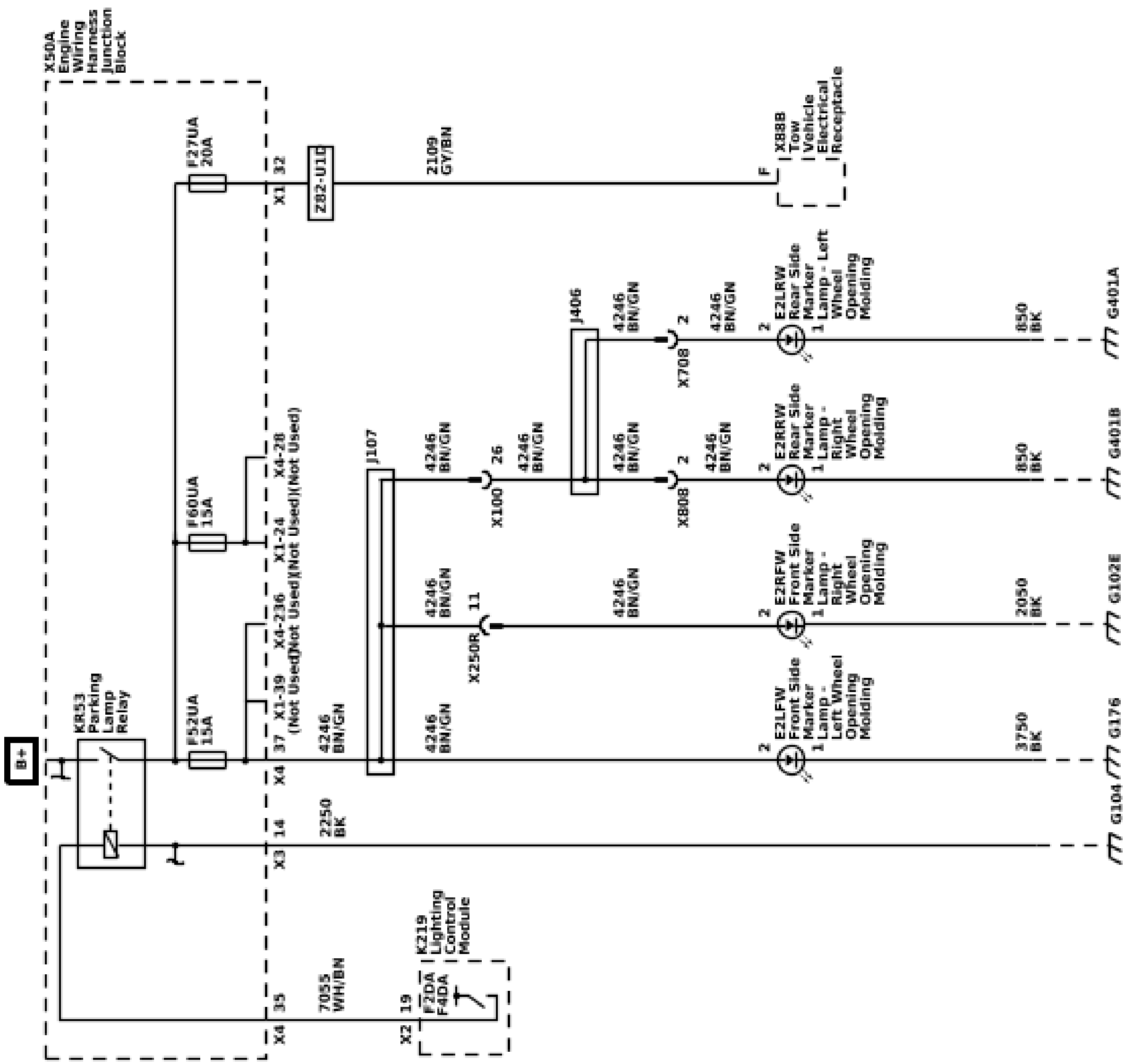
Exterior Lights Schematics (Center High Mount Stop and Cargo Lamps)


F84UA
F29DA
K219 Lighting Control Module
X5 25
X1 8
Trailering Systems Schematics
820 BN/YE
820 BN/YE
1430 WH/VT
U1D
-U1D
J112
B+
X4 45
X50A Engine Wiring Harness Junction Block
KR41 High Mount Stop Lamp Relay
F83UA 10A
F51UA 10A
X3 27
14
X4 48
X1 - 41 (Not Used)
S0Y
840 GY/BU
X100 24
840 GY/BU
X382 1
840 GY/BU
2250 BK
1053 BU/BK
1430 WH/VT
2
1
J420
7762 GY/BU
7762 GY/BU
1
1
E33L Cargo Lamp - Left
E33R Cargo Lamp - Right
2
2
E6 High Mount Stop Lamp
3
550 BK
750 BK
750 BK
G401A
G104
G301A(KI6/KI7)
G301B(-KI6/KI7)

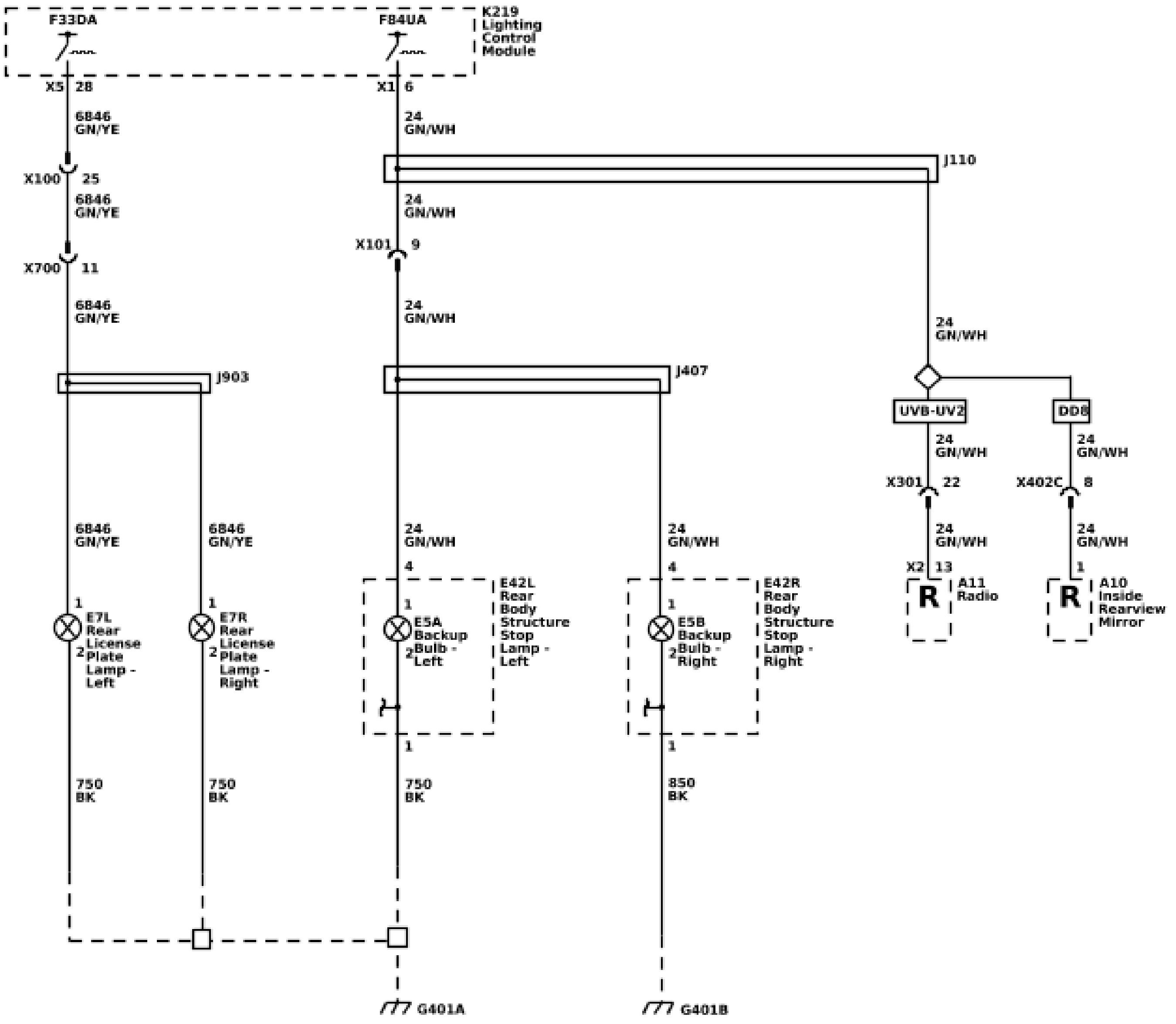
6331705

Exterior Lights Schematics (Identification Lights)

6331706

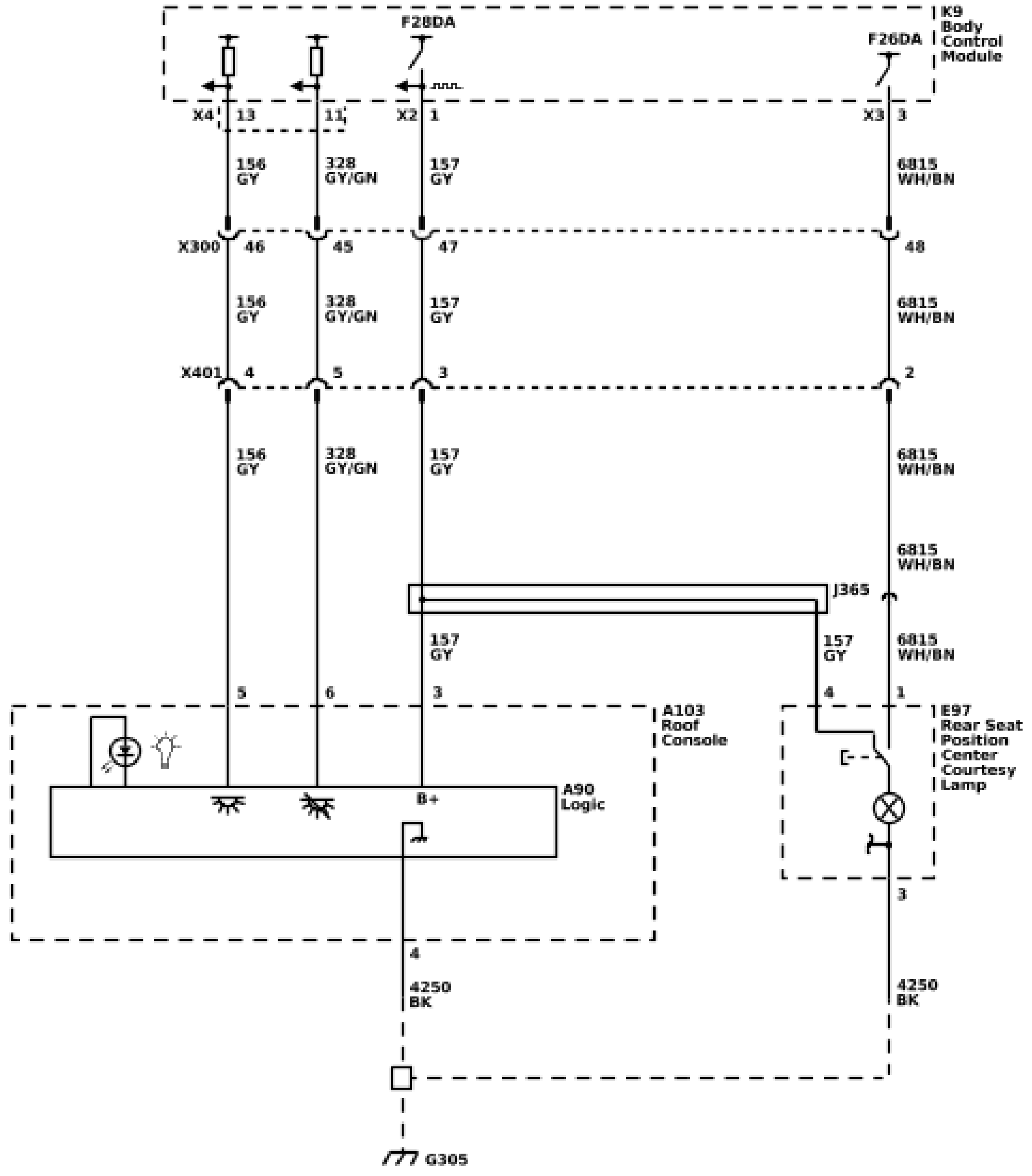

X50A Engine Wiring Harness Junction Block
B+
KR53 Parking Lamp Relay
F27UA 20A
F60UA 15A
F52UA 15A
X1 32
X4-28 (Not Used)
X1-24 (Not Used)
X4-236 (Not Used)
X1-39 (Not Used)
X4 37
X3 14
X4 35
Z82-U1D
2109 GY/BN
F
X88B Tow Vehicle Electrical Receptacle
J107
J406
4246 BN/GN
X100 26
X250R 11
X708 2
X808 2
2250 BK
7055 WH/BN
X2 19
F2DA F4DA
K219 Lighting Control Module
2
1
E2LRW Rear Side Marker Lamp - Left Wheel Opening Molding
E2RRW Rear Side Marker Lamp - Right Wheel Opening Molding
E2RFW Front Side Marker Lamp - Right Wheel Opening Molding
E2LFW Front Side Marker Lamp - Left Wheel Opening Molding
850 BK
2050 BK
3750 BK
G401A
G401B
G102E
G176
G104

Exterior Lights Schematics (Backup and License Lamps)


F33DA
F84UA
K219
Lighting
Control
Module
X5 28
X1 6
6846
GN/YE
24
GN/WH
X100 25
J110
X101 9
X700 11
24
GN/WH
J903
J407
UVB-UV2
DD8
X301 22
X402C 8
X2 13
A11
Radio
1
A10
Inside
Rearview
Mirror
4
E42L
Rear
Body
Structure
Stop
Lamp -
Left
E42R
Rear
Body
Structure
Stop
Lamp -
Right
E7L
Rear
License
Plate
Lamp -
Left
E7R
Rear
License
Plate
Lamp -
Right
E5A
Backup
Bulb -
Left
E5B
Backup
Bulb -
Right
750
BK
850
BK
G401A
G401B

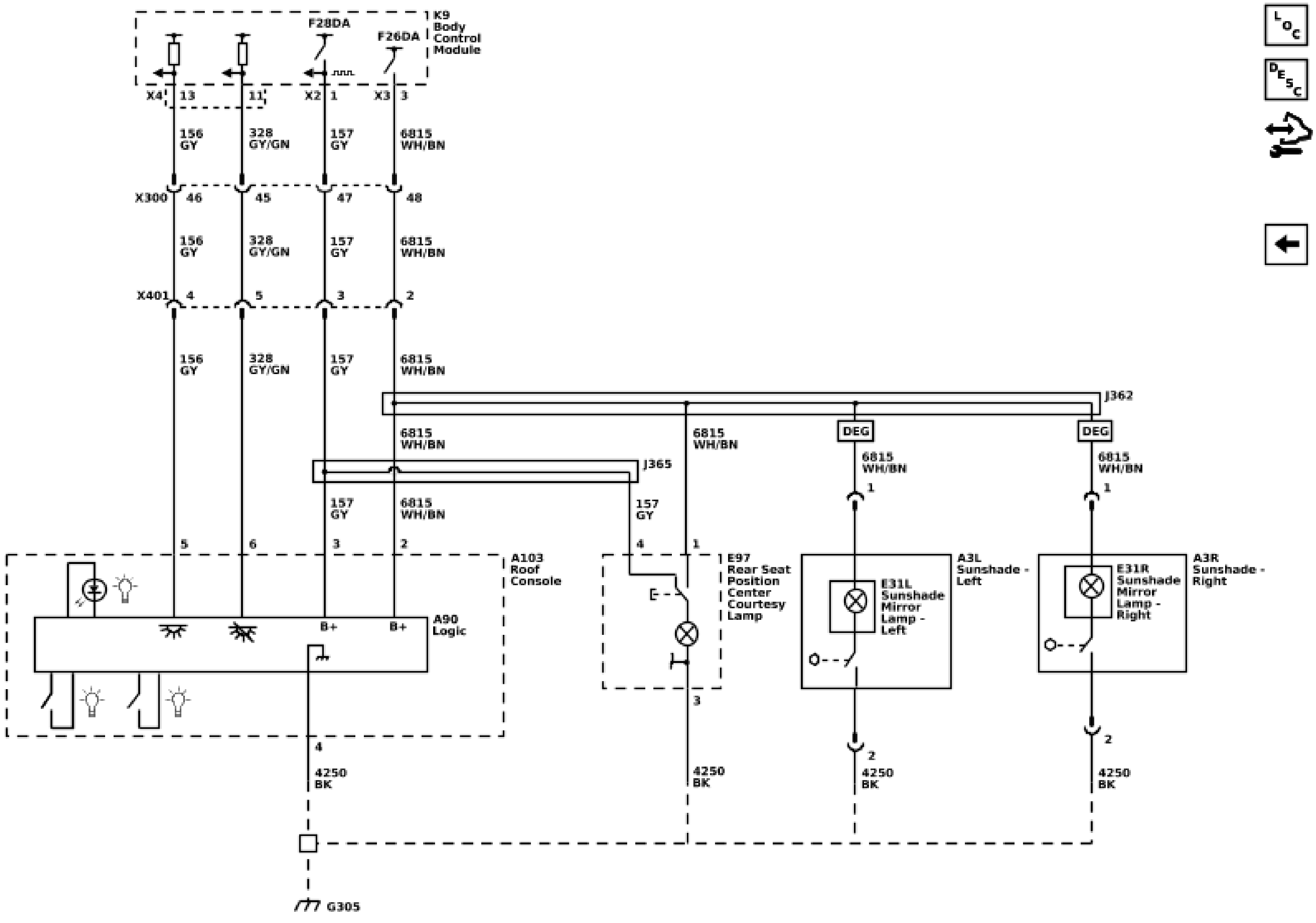
6331707

Interior Lights Schematics (Dome Lamps (C91))


K9
Body
Control
Module
F28DA
F26DA
X4
13
11
X2
1
X3
3
156
GY
328
GY/GN
157
GY
6815
WH/BN
X300
46
45
47
48
X401
4
5
3
2
J365
5
6
3
4
1
A103
Roof
Console
E97
Rear Seat
Position
Center
Courtesy
Lamp
A90
Logic
B+
4
3
4250
BK
G305

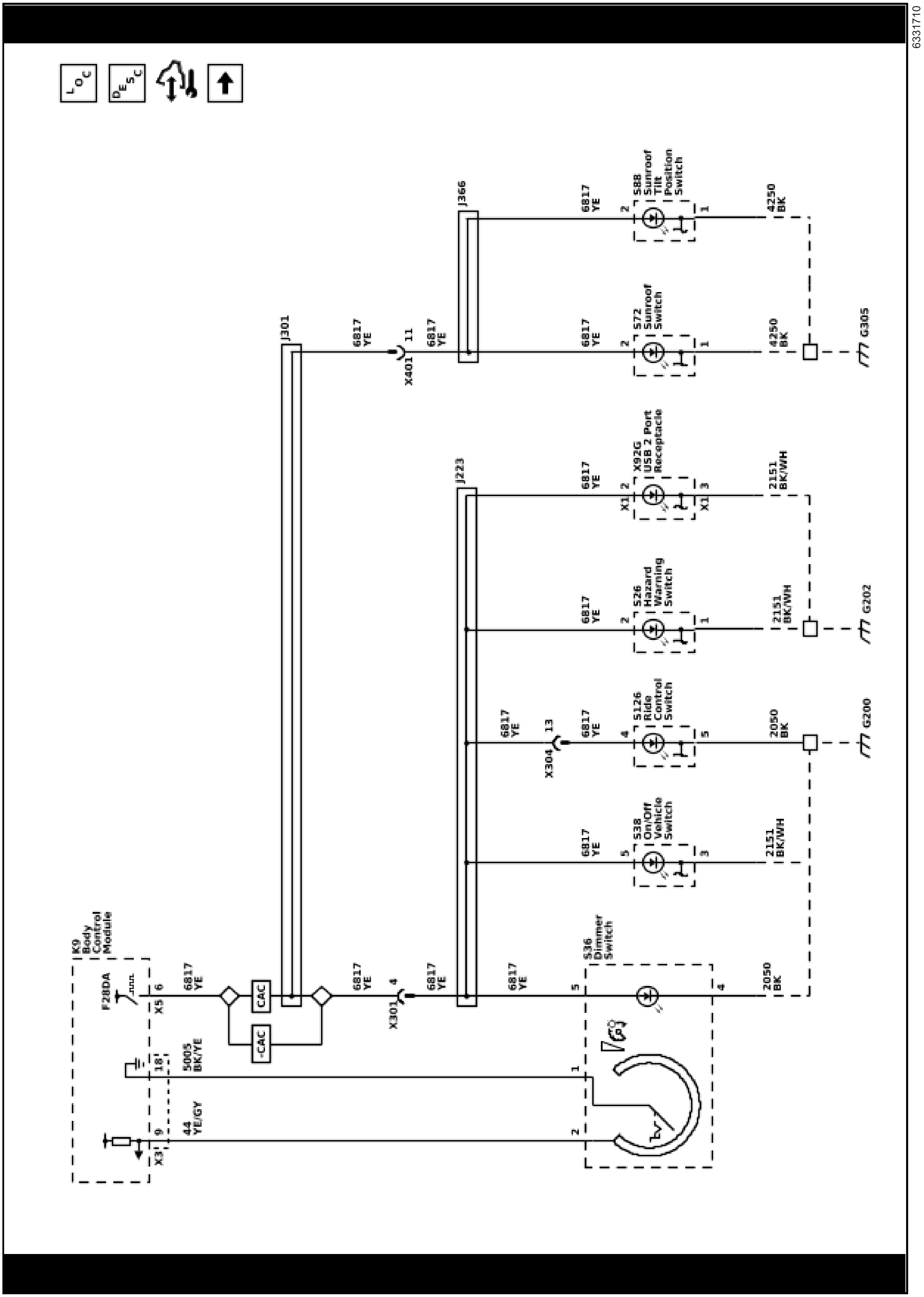
6331708

Interior Lights Schematics (Dome/Reading, and Sunshades (C75 / DEG))

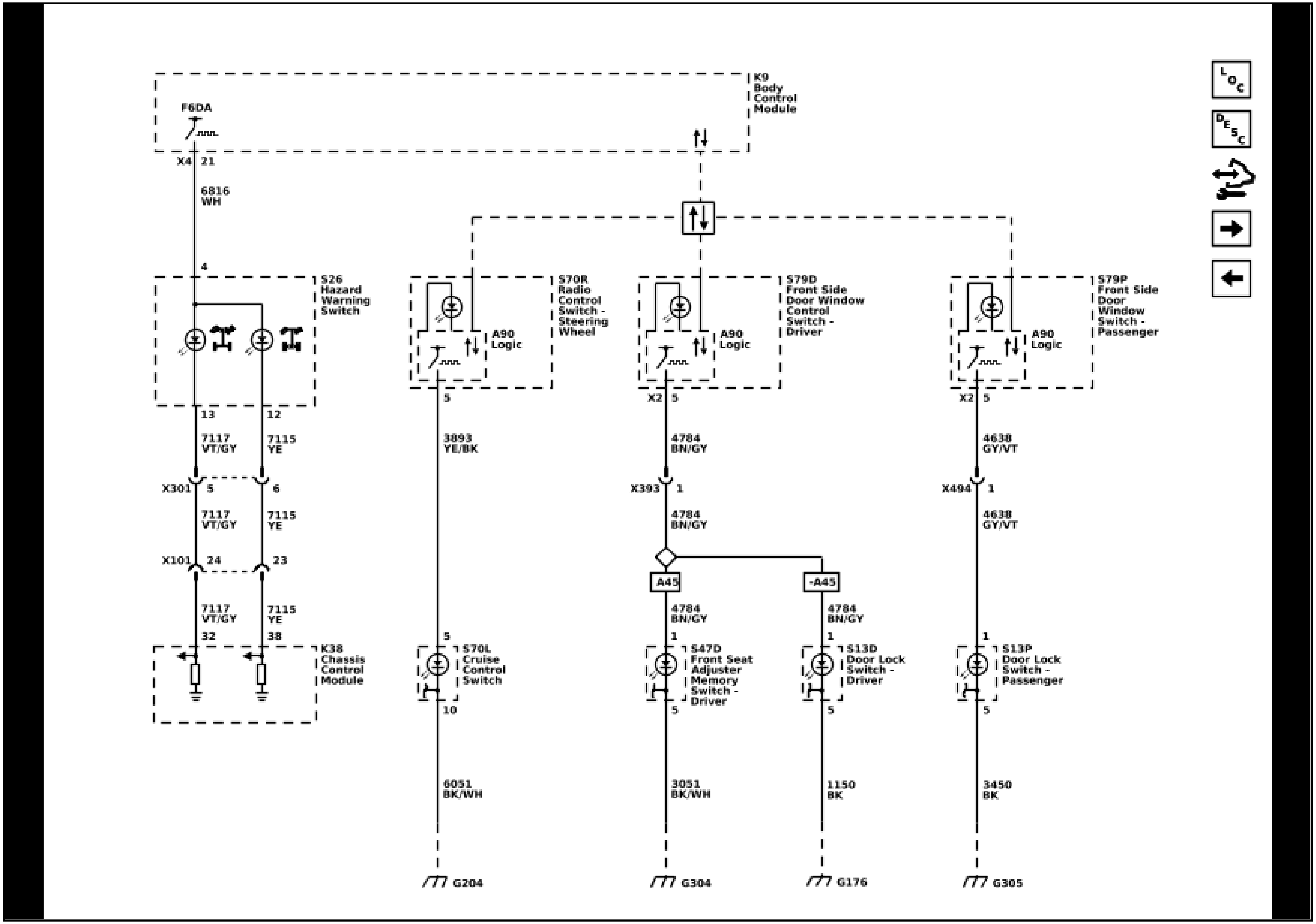

K9 Body Control Module
F28DA
F26DA
X4 13
11
X2 1
X3 3
156 GY
328 GY/GN
157 GY
6815 WH/BN
X300 46
45
47
48
X401 4
5
3
2
J362
J365
DEG
1
2
3
4
5
6
A103 Roof Console
A90 Logic
B+
E97 Rear Seat Position Center Courtesy Lamp
E31L Sunshade Mirror Lamp - Left
A3L Sunshade - Left
E31R Sunshade Mirror Lamp - Right
A3R Sunshade - Right
4250 BK
G305

6331709

Interior Lights Dimming Schematics (Dimming Control, Instrument Panel, and Sunroof Lights)

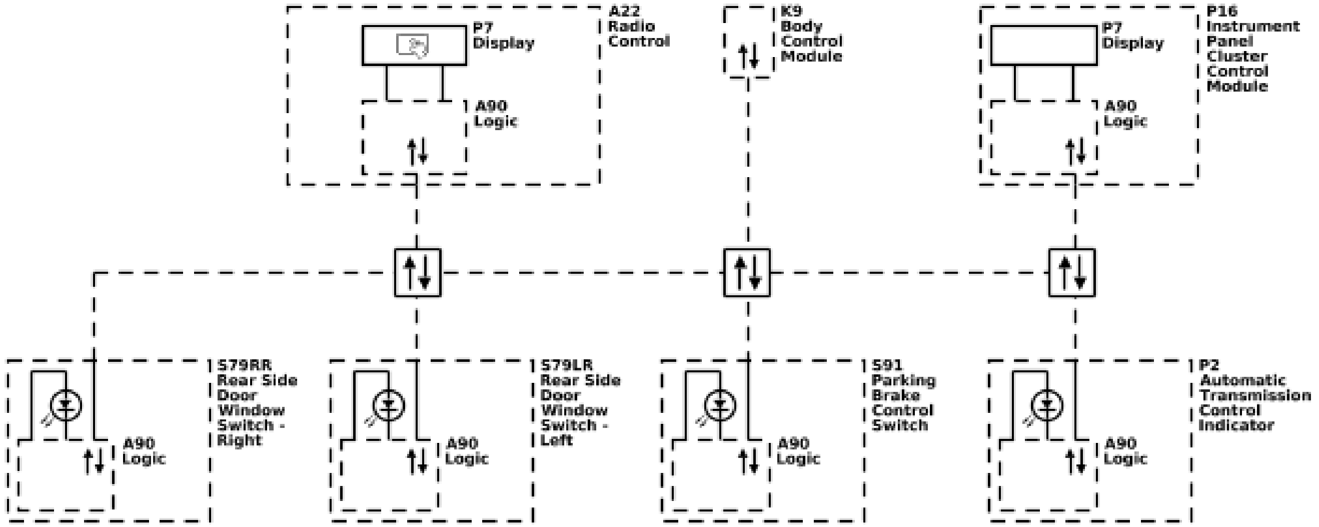

6331710
K9 Body Control Module
F28DA
X5 6
X3 18
X3 9
6817 YE
5005 BK/YE
44 YE/GY
CAC
-CAC
J301
J223
J366
X301 4
X401 11
X304 13
S36 Dimmer Switch
5
4
1
2
2050 BK
S38 On/Off Vehicle Switch
5
3
2151 BK/WH
S126 Ride Control Switch
4
5
2050 BK
G200
S26 Hazard Warning Switch
2
1
2151 BK/WH
G202
X92G USB 2 Port Receptacle
X1 2
X1 3
2151 BK/WH
S72 Sunroof Switch
2
1
4250 BK
G305
S88 Sunroof Tilt Position Switch
2
1
4250 BK

Interior Lights Dimming Schematics (Door, Componant, and Steering Wheel Switch Lamps)


K9 Body Control Module
F6DA
X4 21
6816 WH
4
S26 Hazard Warning Switch
13
12
7117 VT/GY
7115 YE
X301 5
6
7117 VT/GY
7115 YE
X101 24
23
7117 VT/GY
7115 YE
32
38
K38 Chassis Control Module
S70R Radio Control Switch - Steering Wheel
A90 Logic
5
3893 YE/BK
5
S70L Cruise Control Switch
10
6051 BK/WH
G204
S79D Front Side Door Window Control Switch - Driver
A90 Logic
X2 5
4784 BN/GY
X393 1
4784 BN/GY
A45
-A45
4784 BN/GY
1
S47D Front Seat Adjuster Memory Switch - Driver
5
3051 BK/WH
G304
4784 BN/GY
1
S13D Door Lock Switch - Driver
5
1150 BK
G176
S79P Front Side Door Window Switch - Passenger
A90 Logic
X2 5
4638 GY/VT
X494 1
4638 GY/VT
1
S13P Door Lock Switch - Passenger
5
3450 BK
G305

6331711

Interior Lights Dimming Schematics (Serial Data Dimming)


A22
Radio
Control
P7
Display
A90
Logic
K9
Body
Control
Module
P16
Instrument
Panel
Cluster
Control
Module
P7
Display
A90
Logic
S79RR
Rear Side
Door
Window
Switch -
Right
A90
Logic
S79LR
Rear Side
Door
Window
Switch -
Left
A90
Logic
S91
Parking
Brake
Control
Switch
A90
Logic
P2
Automatic
Transmission
Control
Indicator
A90
Logic

6331712

Description and Operation

Exterior Lighting Systems Description and Operation

The exterior lighting system consist of the following lamps:

- Backup lamps
- Cargo lamps
- Daytime running lamps (DRL)
- Exterior courtesy lamps
- Hazard warning lamps
- Headlamps
- Park, tail, license, and marker lamps
- Front fog lamps (T3U)
- Stop lamps
- Task lamps
- Turn signal lamps
- Trailer lighting, refer to *Trailering Description and Operation on page 2-47* for more information.

Headlamp Controls

The Infotainment Display is used to determine headlamp mode between AUTO, ON, Park, and OFF. When the user selects the desired headlamp mode, the Radio sends out a serial data message to multiple modules containing headlamp mode status information. The modules that receive the serial data message respond accordingly. The headlamps may be turned ON in 3 different ways utilizing the Infotainment Display controls:

- When the headlamp mode is placed in the ON position, for normal operation
- When the headlamp mode is placed in the AUTO position, for automatic lamp control during low ambient light conditions
- When the headlamp mode is placed in the AUTO position, with the windshield wipers ON in daylight conditions, after a 6 second delay

Low Beam Headlamps

The K219 Lighting Control Module responds to low beam requests by applying pulse width modulated (PWM) voltage to both headlamp low beam control circuits, illuminating the low beam headlamps. When the Lighting Control Module commands the low beam headlamps ON, the operator will notice the interior backlighting for the instrument cluster and the various other switches dim to the level of brightness selected by the instrument panel dimmer switch.

High Beam Headlamps

The high beam and flash to pass (FTP) functions are contained within the S78 Turn Signal Switch. The K9 Body Control Module (BCM) provides the turn signal/multifunction switch with two signal circuits, the high beam signal circuit and the FTP signal circuit. When the low beam headlamps are ON, and the turn signal/multifunction switch is placed in either the high beam position or FTP position, ground is applied to the BCM through the high beam/FTP signal circuit. The BCM responds to the high beam request by sending a serial data message to the K219 Lighting Control Module. The Lighting Control Module responds by applying pulse width modulated (PWM) voltage to both headlamp high beam control circuits, illuminating the high beam headlamps. The status of the high beam lamps is shown by a blue indicator located on the instrument cluster. When high beams are commanded on, the indicator will be illuminated continuously. If the driver turns the high beams off, the indicator will also turn off.

Flash to Pass

When the S78 Turn Signal Switch is momentarily placed in the flash to pass position, ground is applied to the turn signal/multifunction switch. The turn signal/ multifunction switch applies ground to the K9 Body Control Module (BCM) through the flash to pass switch signal circuit. The BCM responds to the flash to pass request by sending a serial data message to the K219 Lighting Control Module. The Lighting Control Module responds by applying pulse width modulated (PWM) voltage to both headlamp high beam control circuits, illuminating the high beam headlamps. This causes the high beam headlamps to illuminate at full brightness until the turn signal/multifunction switch is returned to the at rest position.

Automatic Headlamp Control

When the headlamp mode is in the AUTO position, the BCM relies on the B10D Sun Load and Ambient Light and Security Indicator Sensor input to determine if headlamps are required or if daytime running lamps will be activated based on outside lighting conditions. During automatic lamp control, the headlamps will be off during daylight conditions but will turn on when the ambient light sensor detects low ambient light conditions. The ambient light sensor is a light sensitive transistor that varies the voltage signal to the BCM. The BCM provides a 5 volt reference signal and a low reference ground to the ambient light sensor. During low light conditions the BCM will request the low beam headlamps ON by sending a serial data message to the K219 Lighting Control Module. The Lighting Control Module responds by applying pulse width modulated (PWM) voltage to both headlamp low beam control circuits, illuminating the low beam headlamps.

Intellibeam – Automatic High Beam Assist (TQ5)

The IntelliBeam system is activated by selecting the automatic high beam assist with the Infotainment Display while the exterior lamp control is in AUTO mode and the engine running. The AHBA system consists of a front camera module that detects light, and is able to identify approaching vehicles on an even, straight road at a distance of greater than 0.4 km (0.25 mi). The front camera module analyzes light color, intensity, and movement. The AHBA system will turn OFF the high beam headlamps when approaching vehicle headlamps or preceding vehicle taillights are detected by the front camera module. The AHBA system is turned off anytime the headlamp mode is out of the AUTO position.

AHBA System Activation

- Vehicle ON
- Headlamp mode placed in the AUTO position

- Outside lighting conditions must be dark
- Vehicle speed greater than 25 mph (40 km/h)

AHBA System Operation

The following are conditions that the AHBA system will turn the high beam headlamps off during operation:

- The system detects approaching traffic headlamps
- The system detects preceding traffic tail lamps
- Ambient light level too high due to towns or twilight situations
- The vehicle’s speed drops below 13 mph (22 km/h)
- Delay

Note: AHBA may not operate properly if any of the following conditions exist:

- Approaching and preceding vehicles lamps are undetectable due to dirt, snow, road spray, smoke, fog, or any other airborne conditions.
- The front camera module is covered with ice, dirt, snow, haze, or is obstructed.
- The vehicle is being driven on winding or hilly road conditions which would make any on coming vehicle headlamps undetectable by the AHBA.

AHBA System Deactivation

- Manually operating the high beam headlamp mode from neutral to high beam position
- AHBA is deactivated automatically when the front or rear fog lamps are turned ON

AHBA System Indicator

The status of the AHBA system is shown by a green indicator located on the instrument panel cluster. When AHBA is active, the indicator will be illuminated continuously. If the operator deactivates the AHBA system, the indicator will turn off.

Daytime Running Lamps

The daytime running lamps (DRL) will illuminate continuously when the following conditions are met:

- Engine running
- The headlamp mode is in the AUTO position
- Ambient light conditions are daytime conditions

The B10D Sun Load and Ambient Light and Security Indicator Sensor is used to monitor outside lighting conditions. The ambient light sensor provides a voltage signal that will vary between 0.2 and 4.9 volts depending on outside lighting conditions. The K9 Body Control Module (BCM) provides a 5 volt reference signal and a low reference ground to the ambient light sensor. The BCM monitors the ambient light sensor signal circuit to determine if outside lighting conditions are correct for either daytime running lamps (DRL) or automatic lamp control when the headlamp mode is in the AUTO position. In daylight conditions the BCM will send a serial data message to the K219 Lighting Control Module to command the DRLs ON, the Lighting Control Module responds by applying pulse width modulated (PWM) voltage to both DRL control circuits, illuminating the DRLs. During low light conditions the Lighting Control Module will command the low beam headlamps ON.

Hazard Lamps

The hazard flashers may be activated in any power mode. The Hazard Warning Switch signal circuit is momentarily grounded when the hazard switch is pressed. The K9 Body Control Module (BCM) responds to the hazard switch signal input by sending a serial data message to the K219 Lighting Control Module. The Lighting Control Module responds by supplying battery voltage to all turn signal lamps in an ON and OFF duty cycle. When the hazard switch is activated, the BCM also sends a serial data message to the instrument cluster requesting both turn signal indicators to be cycled ON and OFF.

Park, Tail, and License Lamps

When the headlamp mode is placed in the HEAD or PARK position, the K219 Lighting Control Module responds by applying battery voltage to the park lamps, tail lamps, and license lamps control circuits illuminating the park, tail, and license lamps.

Stop Lamps

The B22 Brake Pedal Position Sensor is used to sense the action of the driver application of the brake pedal. The K9 Body Control Module (BCM) provides the brake pedal position sensor with low reference, signal, and 5 volt reference circuits. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM will respond by sending a serial data message to the K219 Lighting Control Module requesting the stop lamps to be turned ON. The Lighting Control Module responds by applying battery voltage to the left and right stop lamp control circuits as well as the center high mounted stop lamp control circuit illuminating the left and right stop lamps and the center high mounted stop lamp. If serial data communication is lost between the BCM and the Lighting Control Module, the Lighting Control Module will receive a serial data message from the Electronic Brake Control Module indicating that the brakes have been applied. If serial data communication is lost between all three modules, the Lighting Control Module also receives a hard wired voltage signal from the BCM to signal the brake lamps ON.

Turn Signal Lamps

Turn Signals

The K9 Body Control Module (BCM) provides the S78 Turn Signal Switch with left and right turn signal switch signal circuits. Ground is applied at all times to the turn signal/multifunction switch. The turn signal lamps may only be activated with the ignition switch in the ON or START positions. When the turn signal/ multifunction switch is placed in either the turn right or turn left position, ground is applied to the BCM through either the right turn or left turn signal switch signal circuit. The BCM responds to the turn signal switch input by sending a serial data message to the K219 Lighting Control Module. The Lighting Control Module responds by applying a pulsating voltage to the turn signal lamps through there respective control circuits. When a turn signal request is received by the BCM, a serial data message is also sent to the instrument cluster requesting the respective turn signal indicator be pulsed ON and OFF.

Turn Signal Outage Detection

Vehicles with LED turn signals require additional turn signal outage detection circuits that provide turn signal feedback to the K219 Lighting Control Module. The Lighting Control Module uses the feedback information to send a serial data message to the instrument cluster to alert the driver anytime a turn signal fault is detected. If a fault is detected on a turn signal circuit or a turn signal feedback circuit, the turn signals will flash in a rapid manner to alert the driver of the fault.

Backup Lamps

With the engine running and the transmission in the reverse position, the transmission control module (TCM) sends a serial data message to the multiple control modules. The message indicates that the gear selector is in the reverse position. The K9 Body Control Module (BCM) responds to the reverse position message by sending a serial data message to the K219 Lighting Control Module to request the backup lamps on. The Lighting Control Module responds by applying battery voltage to the backup lamps control circuit(s) illuminating the backup lamps. The applied voltage is also sent to the A11 Radio and A10 Inside Rearview Mirror for rearview camera purposes. Once the driver moves the gear selector out of the reverse position, a serial data message is sent by the TCM that the transmission is no longer in the reverse position. The BCM responds to the reverse position message by sending a serial data message to the Lighting Control Module to request the backup lamps off. The Lighting Control Module responds by removing battery voltage from the backup lamp circuits. The engine must be running for the backup lamps to operate.

Cargo Lamps

When the K219 Lighting Control Module receives a cargo lamp request from the Infotainment Display, the lighting control module responds by applying pulse width modulated (PWM) voltage to the cargo lamp control circuits illuminating the cargo lamps. In the event that the cargo lamps were to remain illuminated for more than 10 minutes with the ignition switch in the OFF position, the lighting control module will deactivate the cargo lamp control circuits to prevent total battery discharge.

Approach Lighting

Approach lighting is commanded ON when the unlock button is pressed on the keyless entry transmitter during dark ambient light conditions. When the keyless entry transmitter unlock button is pressed, a serial data message is sent by the K9 Body Control Module (BCM) that the vehicle is being unlocked. The K219 Lighting Control Module responds to the serial data message by applying voltage to the approach lamp control circuit illuminating the LED lighting located under each outside rearview mirror as part of approach lighting.

Battery Run Down Protection/ Inadvertent Power

To provide battery run down protection, the exterior lamps will be deactivated automatically under certain conditions. The K9 Body Control Module (BCM) monitors the state of the S30 Headlamp Switch. If the headlamp switch is in the park or headlamp position when the ignition switch is ON and then the ignition switch is placed in the OFF position, the BCM initiates a 10 minutes timer. At the end of the 10 minutes, the BCM will send a serial data message to the K219 Lighting Control Module to deactivate the exterior lamps to prevent total battery discharge. This feature will be cancelled if any power mode other than OFF becomes active.

The BCM will disable battery run down protection if any of the following conditions exist:

- The park or headlamp switch is changed from the ON to OFF position, and back to the ON position during battery run down protection.
- The BCM determined that the park or headlamp switch was not active when the ignition was turned OFF.

Interior Lighting Systems Description and Operation

Interior Lamps

Dome Lamps

The dome lamps are controlled by door ajar inputs to the K9 Body Control Module (BCM). When any door is opened, the door ajar switch contacts close and the BCM receives a door-open input. The BCM responds by sending a serial data message to the A103 Roof Console. The Roof Console responds by applying battery voltage to the dome lamps illuminating the dome lamps. The BCM will also send a serial data message to request the dome lamps on when a door lock/unlock request is activated with the key fob. After all doors have been closed, the dome lamp will remain illuminated approximately 3 seconds after the last door closes. In the event that the dome lamp were to remain illuminated for more than 10 minutes with the ignition switch in the OFF position, the BCM will deactivate the dome lamp control circuit to prevent total battery discharge. The dome lamps will turn OFF using the theater dimming feature when controlled by the BCM.

Keyless Entry Interior Illumination

When the operator uses the keyless entry transmitter in order to unlock the doors, the K9 Body Control Module (BCM) receives a door-unlock signal. The BCM must receive inputs from various systems that indicate that the ignition switch is OFF, the courtesy lamp switch is OFF, and all doors are closed before the BCM will activate the interior lamps. After all doors have been closed, the courtesy lamps will turn OFF immediately if the ignition switch is turned to the ON position, the door locks are LOCKED, or approximately 20 seconds after the last door closes. The BCM will turn off the courtesy lamps through the theater dimming feature. The BCM keeps the courtesy lamps on for 40 seconds after an alarm event is completed.

Reading Lamps

When a reading lamp button is pressed, the switch contacts close providing a path to ground for the signal circuit from the A103 Roof Console. The roof console responds by applying battery voltage to the appropriate reading lamp control circuit illuminating the reading lamp. If the operator inadvertently leaves a reading lamp ON, the BCM will send a serial data message to turn all interior lighting off after 10 minutes has passed to prevent total battery discharge.

Sunshade Mirror Lamp

The inadvertent power supply voltage circuit from the K9 Body Control Module (BCM) provides battery voltage to the passenger side sunshade mirror lamp. When the sunshade mirror cover is opened, a switch closes providing ground and the sunshade lamp illuminates. If the operator inadvertently leaves the sunshade mirror cover open with the lamp ON, the BCM will turn all interior lamps OFF after 10 minutes has passed to prevent total battery discharge.

Interior Lamps Dimming

With the headlamp mode in the PARK or HEAD position, the K9 Body Control Module (BCM) responds by applying voltage to the backlight dimming control circuits illuminating all components with interior backlighting. All interior backlighting turns on at the dimming level set by the dimmer switch. The dimmer switch is used to increase and decrease the brightness of the interior backlighting components. The BCM provides a signal circuit and a low reference circuit to the dimmer switch for backlight dimming. When a dimming setting is selected, the signal circuit becomes grounded through the variable resistor internal to the dimmer switch and voltage from the BCM will decrease accordingly. The BCM interprets the signal and responds in two ways. The BCM applies a pulse width modulated (PWM) voltage through the LED dimming control circuits illuminating the interior backlighting to the requested level of brightness. The BCM also sends a serial data message to the appropriate control modules requesting all dimming components to be illuminated to the same level of brightness.

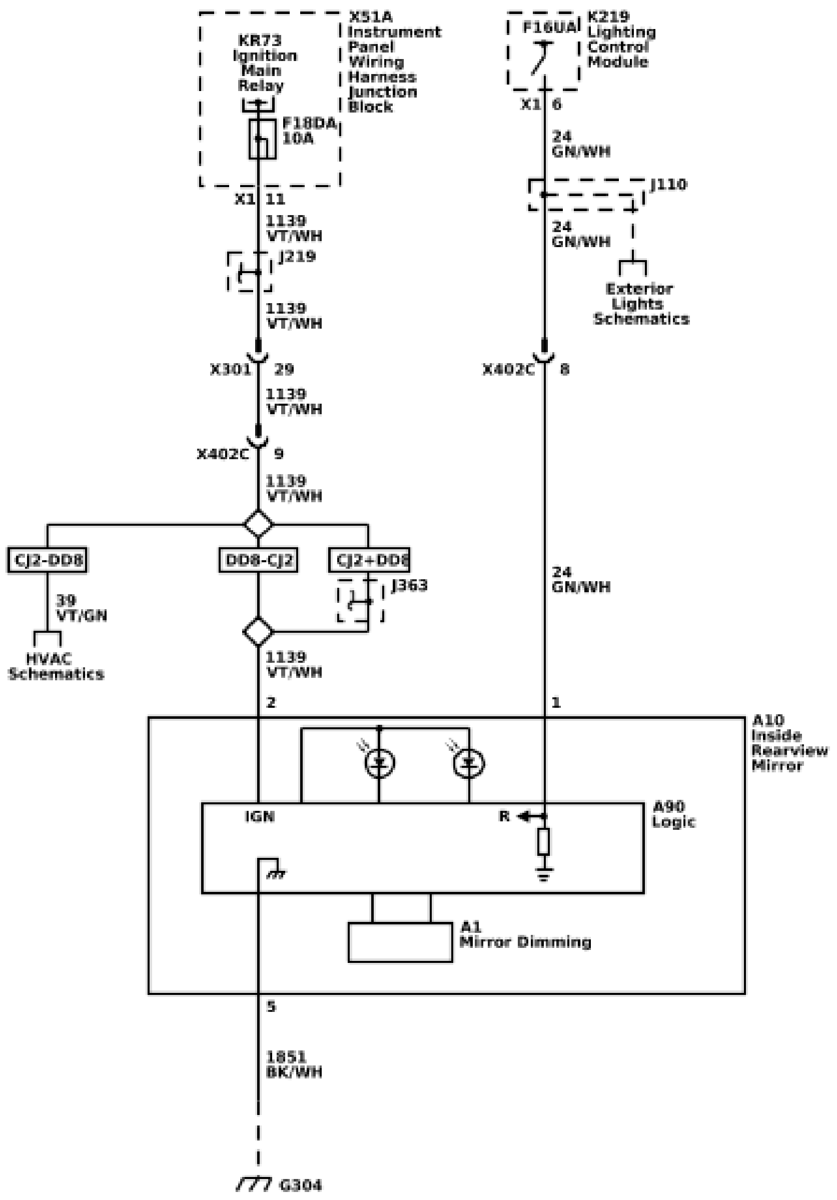
Battery Rundown Protection/ Inadvertent Power

The K9 Body Control Module (BCM) inadvertent power supply voltage circuit provides battery voltage to all of the interior courtesy lamps. In the event that any of these lamps were to remain illuminated for a period of more than 10 minutes with the ignition switch in the OFF position, the BCM will deactivate the inadvertent power supply voltage circuit to prevent total battery discharge. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this 10 minute period, the timer resets for another 10 minutes.

Mirrors

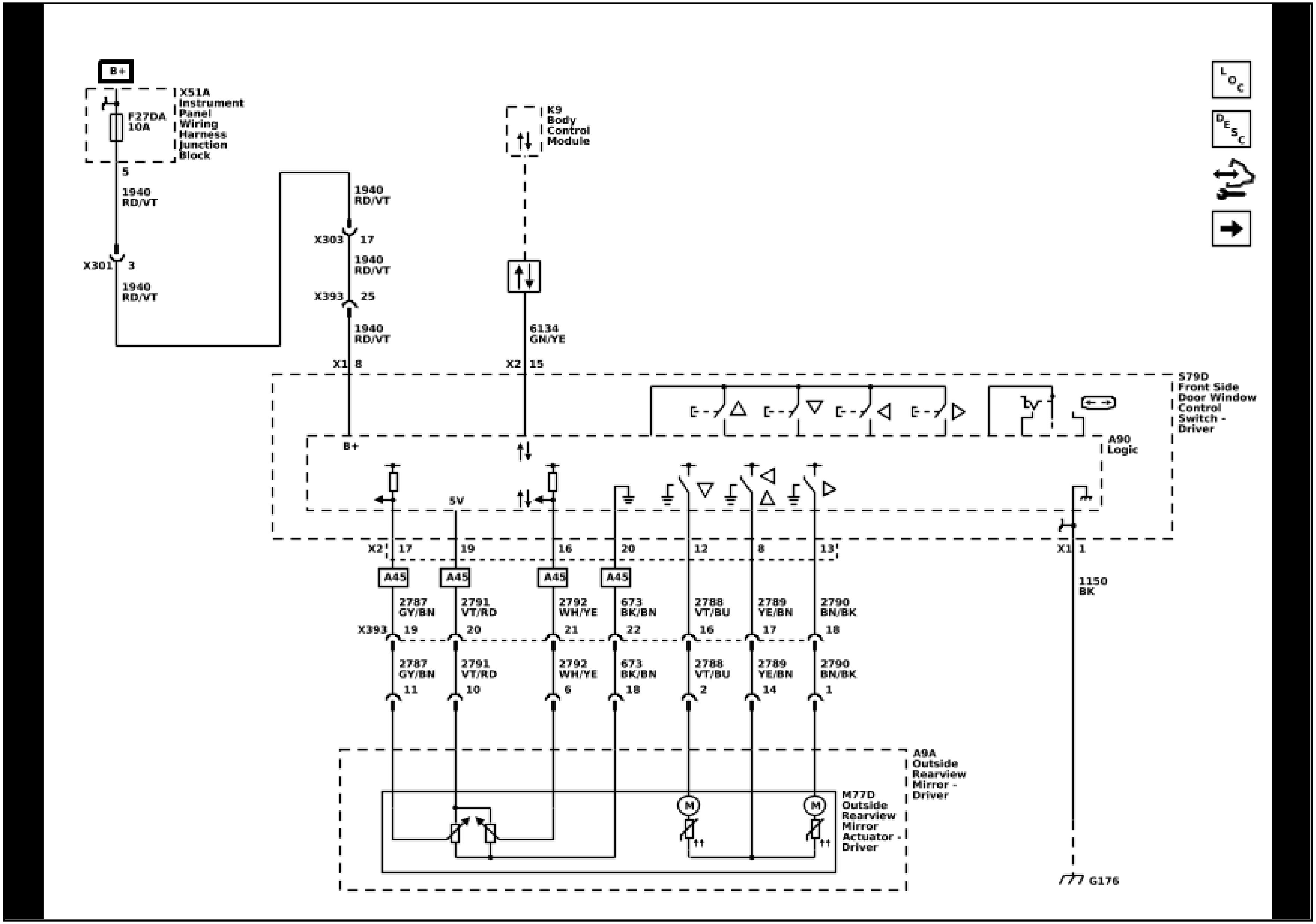
Schematic and Routing Diagrams

Inside Rearview Mirror Schematics (Auto-Dimming Mirror (DD8))

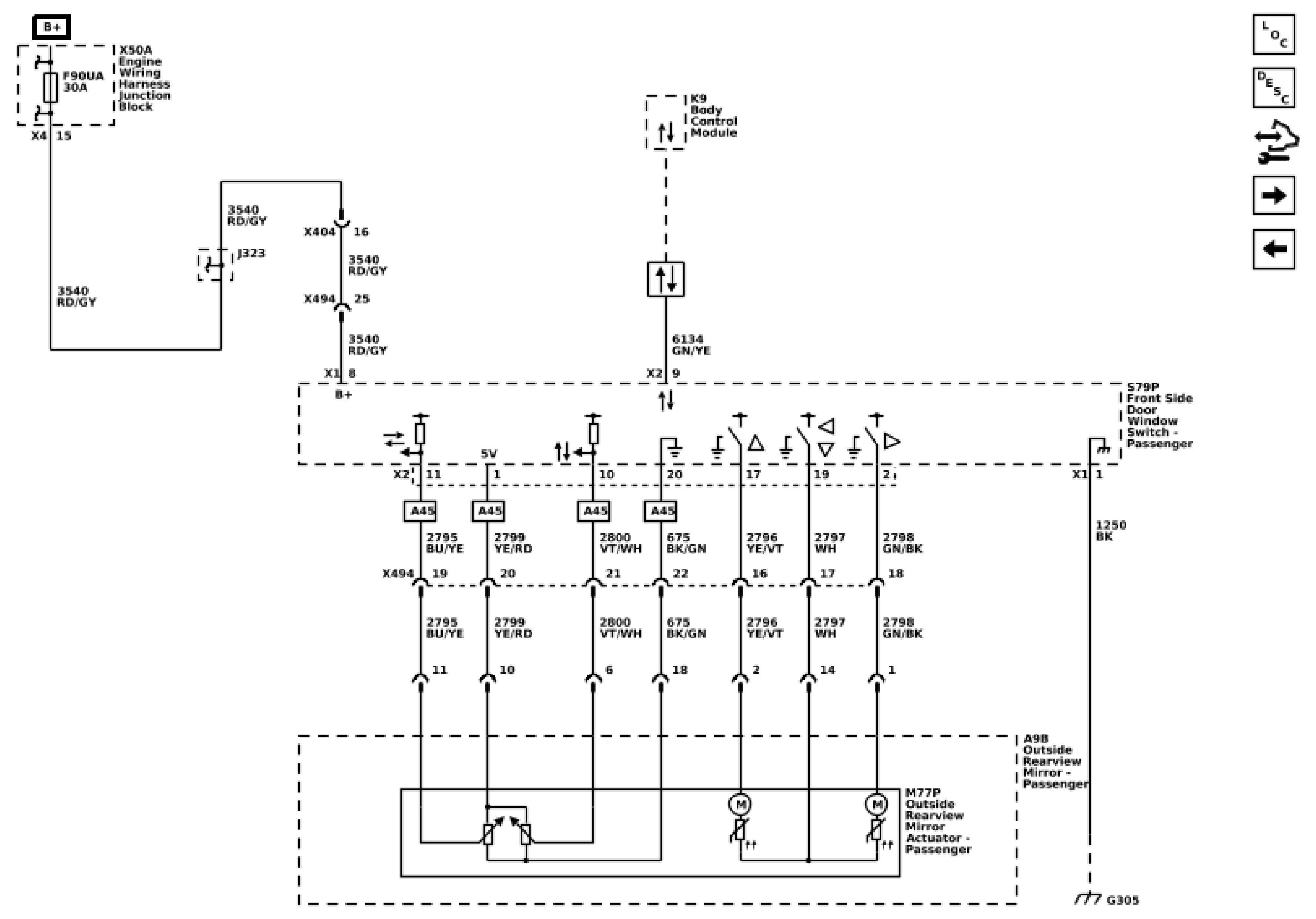

X51A Instrument Panel Wiring Harness Junction Block
KR73 Ignition Main Relay
F18DA 10A
X1 11
1139 VT/WH
J219
1139 VT/WH
X301 29
1139 VT/WH
X402C 9
1139 VT/WH
CJ2-DD8
DD8-CJ2
CJ2+DD8
J363
39 VT/GN
HVAC Schematics
1139 VT/WH
2
K219 Lighting Control Module
F16UA
X1 6
24 GN/WH
J110
24 GN/WH
Exterior Lights Schematics
X402C 8
24 GN/WH
1
A10 Inside Rearview Mirror
IGN
R
A90 Logic
A1 Mirror Dimming
5
1851 BK/WH
G304

6331714

Outside Rearview Mirror Schematics (Driver Controls and Position)

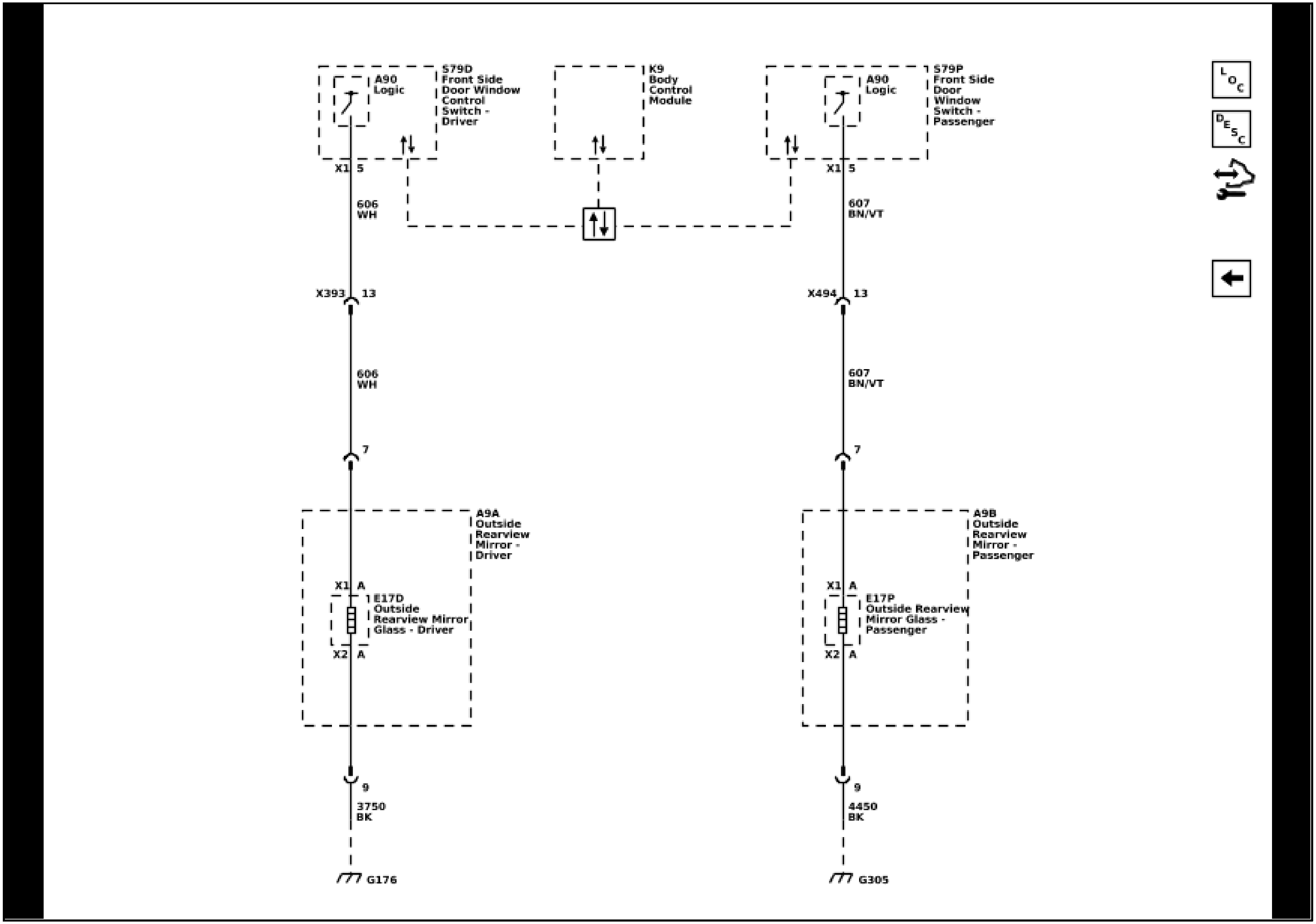

B+
X51A Instrument Panel Wiring Harness Junction Block
F27DA 10A
5
1940 RD/VT
X301 3
1940 RD/VT
1940 RD/VT
X303 17
1940 RD/VT
X393 25
1940 RD/VT
X1 8
K9 Body Control Module
6134 GN/YE
X2 15
S79D Front Side Door Window Control Switch - Driver
A90 Logic
B+
5V
X2 17
19
16
20
12
8
13
X1 1
A45
A45
A45
A45
2787 GY/BN
2791 VT/RD
2792 WH/YE
673 BK/BN
2788 VT/BU
2789 YE/BN
2790 BN/BK
1150 BK
X393 19
20
21
22
16
17
18
2787 GY/BN
2791 VT/RD
2792 WH/YE
673 BK/BN
2788 VT/BU
2789 YE/BN
2790 BN/BK
11
10
6
18
2
14
1
A9A Outside Rearview Mirror - Driver
M77D Outside Rearview Mirror Actuator - Driver
M
M
G176
L O C
D E S C
6331715

Outside Rearview Mirror Schematics (Passenger Controls and Position)


B+
X50A Engine Wiring Harness Junction Block
F90UA 30A
X4 15
3540 RD/GY
J323
3540 RD/GY
X404 16
3540 RD/GY
X494 25
3540 RD/GY
X1 8
B+
K9 Body Control Module
6134 GN/YE
X2 9
S79P Front Side Door Window Switch - Passenger
5V
X2 11
1
10
20
17
19
2
X1 1
A45
A45
A45
A45
2795 BU/YE
2799 YE/RD
2800 VT/WH
675 BK/GN
2796 YE/VT
2797 WH
2798 GN/BK
1250 BK
X494 19
20
21
22
16
17
18
2795 BU/YE
2799 YE/RD
2800 VT/WH
675 BK/GN
2796 YE/VT
2797 WH
2798 GN/BK
11
10
6
18
2
14
1
A9B Outside Rearview Mirror - Passenger
M77P Outside Rearview Mirror Actuator - Passenger
M
M
G305
L O C
D E S C

6331716

Outside Rearview Mirror Schematics (Heating)


S79D
Front Side
Door Window
Control
Switch -
Driver
A90
Logic
X1 5
606
WH
K9
Body
Control
Module
S79P
Front Side
Door
Window
Switch -
Passenger
A90
Logic
X1 5
607
BN/VT
X393 13
606
WH
7
X494 13
607
BN/VT
7
A9A
Outside
Rearview
Mirror -
Driver
X1 A
E17D
Outside
Rearview Mirror
Glass - Driver
X2 A
A9B
Outside
Rearview
Mirror -
Passenger
X1 A
E17P
Outside Rearview
Mirror Glass -
Passenger
X2 A
9
3750
BK
G176
9
4450
BK
G305
6331717

Description and Operation

Automatic Day-Night Mirror Description and Operation

Inside Rearview Mirror with the Automatic Day-Night Feature System Operation

The inside rearview mirror uses 2 photocell sensors. One sensor is the headlight sensor, located on the face side of the mirror. The headlight sensor is used to determine light conditions present at the mirror face. The other sensor is the ambient light sensor, located on the rear of the mirror or windshield side. The ambient light sensor is used to determine the exterior light conditions. With a low exterior light condition detected, and a high light condition from behind the car, at the headlight sensor, the inside rearview mirror will automatically darken the face of the mirror.

In the daytime, the mirror is in a normal state because of the high exterior light condition that is indicated by the ambient light sensor. With the gear selector lever in the REVERSE position and the Ignition ON/Vehicle in Service Mode, backup lamp supply voltage is supplied as an input to the inside rearview mirror. The mirror monitors this input to disable the automatic day-night feature. This allows the driver to see objects in the mirror clearly when backing up, even during the night.

Driver Outside Rearview Mirror with Automatic Day-Night System Operation (If Equipped)

The automatic day-night feature of the driver outside rearview mirror is controlled by the inside rearview mirror. The inside rearview mirror supplies control and low reference to the driver outside rearview mirror. At night, with the automatic day-night feature enabled, the driver outside rearview mirror will automatically darken with the inside rearview mirror to reduce glare from headlamps behind the vehicle.

Outside Mirror Description and Operation

Power Mirror System Components

The power mirror system consists of the following components:

- Body Control Module
- Driver Seat Adjuster Memory Module
- Outside Mirror Switch
- Passenger Window Switch
- Left Outside Rearview Mirror
- Right Outside Rearview Mirror

Power Mirror System Controls

The outside rearview mirror switch is part of the S79D Driver Front Side Door Window Control Switch and uses serial data to control the passenger mirror through the S79P Passenger Front Side Door Window Control Switch. Each S79 Side Door Window Control Switch has it own 12V, ground and data communications circuit along with mirror directional control and mirror fold circuits.

Driver Mirror Controls

The S79D Driver Front Side Door Window Control Switch has internal connections for the driver mirror. When the mirror position switch is active the driver mirror is commanded to move through bi-directional motor control circuits. The motor control circuits are floating while in an inactive state and the switches will apply power and ground to the control circuits as necessary to move the mirror in the commanded direction.

Passenger Mirror Controls

The S79D Driver Front Side Door Window Control Switch uses serial data circuits to communicate the active states for the passenger mirror switch to the S79P Passenger Front Side Door Window Control Switch. The S79P Passenger Front Side Door Window Control Switch has internal connections for the passenger mirror. When the mirror position switch is active the passenger mirror is commanded to move through bi-directional motor control circuits. The motor control circuits are floating while in an inactive state and the switches will apply power and ground to the control circuits as necessary to move the mirror in the commanded direction.

Mirror Position

Mirror position is determined by both horizontal and vertical position sensors in each of the power mirrors. Each S79 Front Side Door Window Control Switch supplies a 5 V reference, low reference, and horizontal and vertical position signal circuits to these sensors. The signal circuits are referenced from 5 V by the S79 Front Side Door Window Control Switch and the signal circuit voltage levels represent the mirror positions. The mirror positions are stored in each S79 Front Side Door Window Control Switch for memory mirror operation. When the memory seat module receives a memory recall command, the memory seat control module will send the go to position to the S79 Front Side Door Window Control Switch. The S79 Front Side Door Window Control Switches will then drive the appropriate mirror motors to the commanded position sensor settings.

Mirror Select

The S79D Driver Front Side Door Window Control Switch has internal connections for the mirror select switch. When the mirror select switch is active the S79 Front Side Door Window Control Switch will either control the driver mirror or send a serial data message to control the passenger mirror.

Folding Mirrors

The S79D Driver Front Side Door Window Control Switch sends the mirror fold/unfold inputs to the K9 Body Control Module (BCM) through serial data. When the BCM receives a fold/unfold signal it will send a fold/unfold command to the S79 Driver Front Side Door Window Control Switch which will send a serial data message to the S79P Passenger Front Side Door Window Control Switch. The outside mirrors will fold or unfold depending on their current state. The BCM will also send a serial data message to unfold the mirrors when the vehicle reaches 20 km/h (12 mph). The S79 Front Side Door Window Control Switches control the fold/unfold motors through bi-directional control circuits

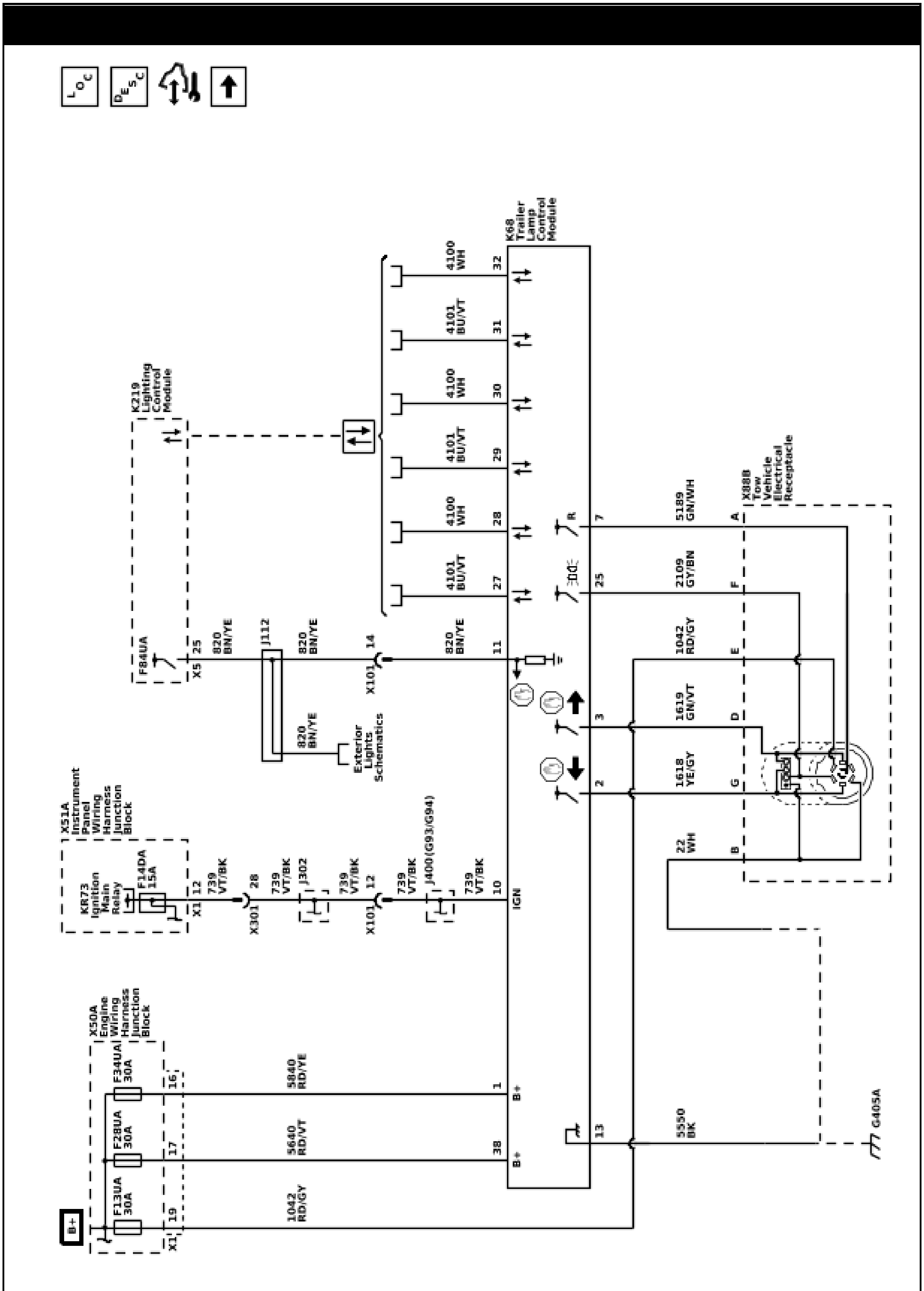
Heated Mirrors

The heated mirrors are controlled through each S79 Front Side Door Window Control Switch. When the vehicle is running and the HVAC control module receives a rear window defog request from the radio/ HVAC controls, the HVAC control module will send a serial data message to the S79D Driver Front Side Door Window Control Switch and S79P Passenger Front Side Door Window Control Switch. Each S79 Front Side Door Window Control Switch provide B + voltage to the driver and passenger outside rearview mirror heating elements.

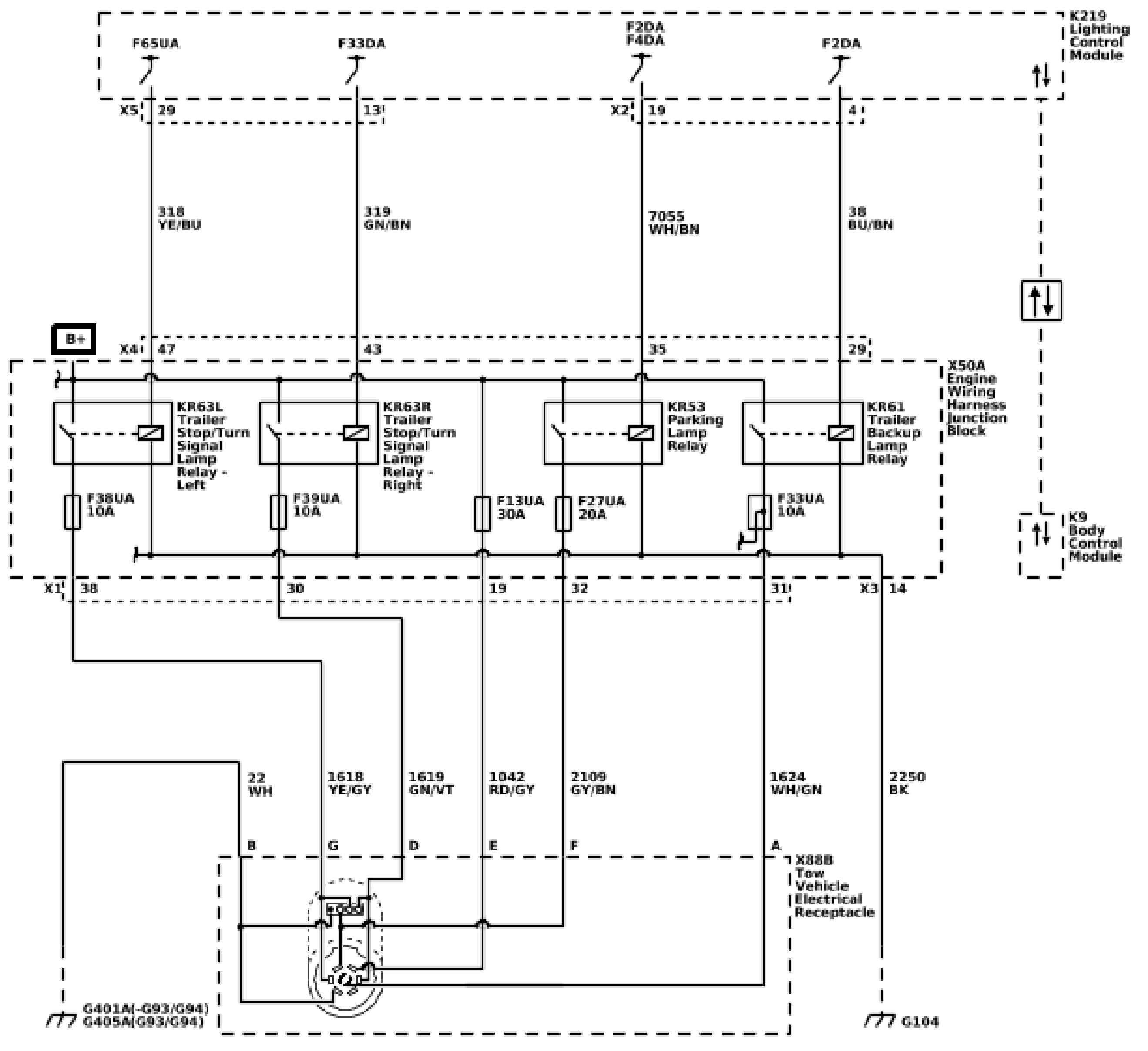
Trailering Systems

Schematic and Routing Diagrams

Trailering Systems Schematics (Trailer Lamp Control Module and Trailer Connector Pins: A, B, D, E, F, G (Z82 & U1D))

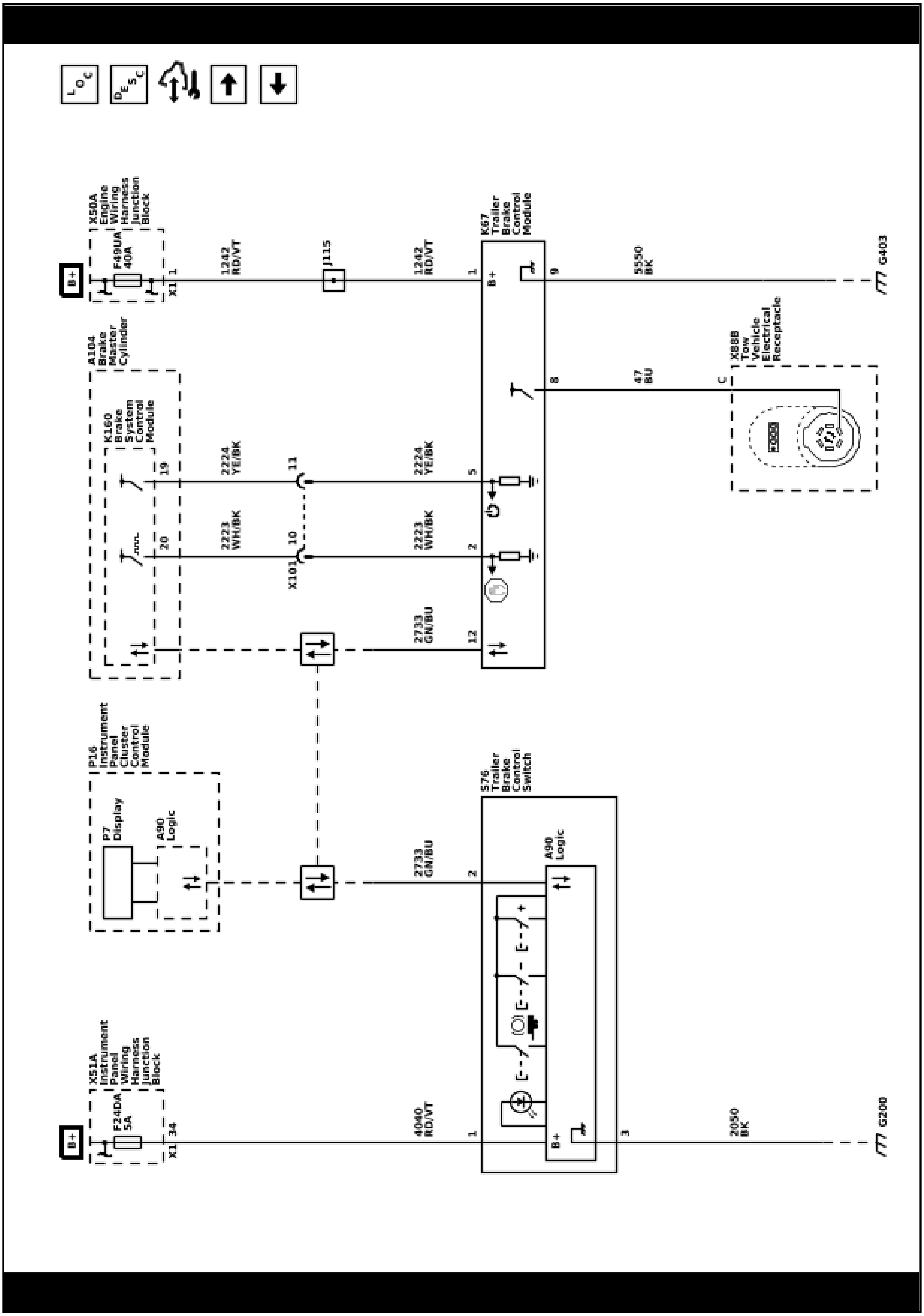

6331718
B+
F13UA 30A
F28UA 30A
F34UA 30A
X1 19
17
16
X50A Engine Wiring Harness Junction Block
1042 RD/GY
5640 RD/VT
5840 RD/YE
1 B+
38 B+
KR73 Ignition Main Relay
F14DA 15A
X51A Instrument Panel Wiring Harness Junction Block
X1 12
739 VT/BK
X301 28
J302
X101 12
J400(G93/G94)
10 IGN
F84UA
X5 25
820 BN/YE
J112
Exterior Lights Schematics
X101 14
11
K219 Lighting Control Module
27
28
29
30
31
32
4101 BU/VT
4100 WH
K68 Trailer Lamp Control Module
R
25
7
3
2
13
5189 GN/WH
2109 GY/BN
1042 RD/GY
1619 GN/VT
1618 YE/GY
22 WH
5550 BK
A
F
E
D
G
B
X88B Tow Vehicle Electrical Receptacle
G405A

Trailering Systems Schematics (Trailer Connector Pins: A, B, D, E, F, G (Z82 - U1D))

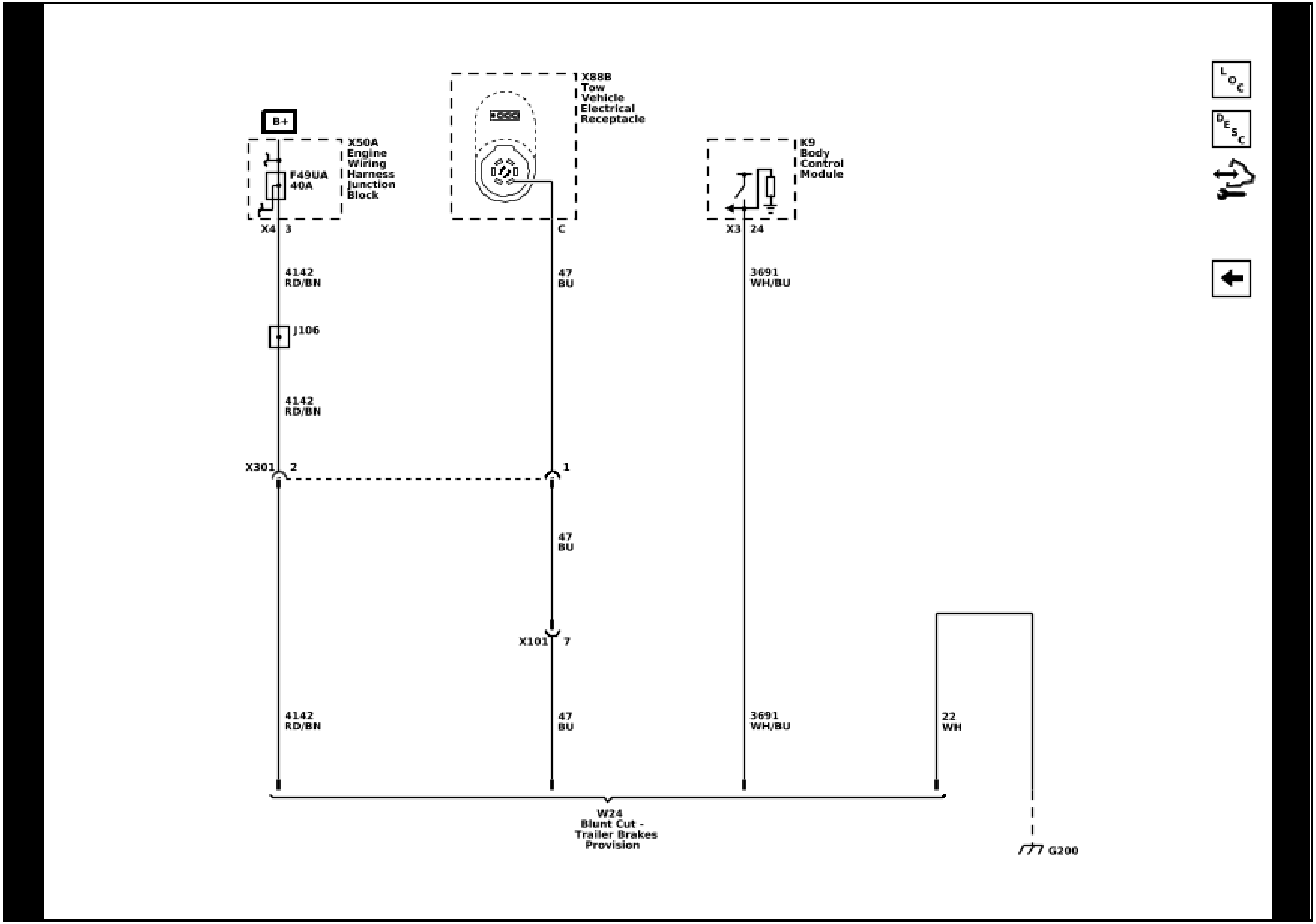

K219
Lighting
Control
Module
F65UA
F33DA
F2DA
F4DA
F2DA
X5 29
13
X2 19
4
318
YE/BU
319
GN/BN
7055
WH/BN
38
BU/BN
B+
X4 47
43
35
29
X50A
Engine
Wiring
Harness
Junction
Block
KR63L
Trailer
Stop/Turn
Signal
Lamp
Relay -
Left
KR63R
Trailer
Stop/Turn
Signal
Lamp
Relay -
Right
KR53
Parking
Lamp
Relay
KR61
Trailer
Backup
Lamp
Relay
F38UA
10A
F39UA
10A
F13UA
30A
F27UA
20A
F33UA
10A
K9
Body
Control
Module
X1 38
30
19
32
31
X3 14
22
WH
1618
YE/GY
1619
GN/VT
1042
RD/GY
2109
GY/BN
1624
WH/GN
2250
BK
B
G
D
E
F
A
X88B
Tow
Vehicle
Electrical
Receptacle
G401A(-G93/G94)
G405A(G93/G94)
G104

6331719

Trailering Systems Schematics (Trailer Brake and Trailer Connector Pin: C (JL1))


6331720
B+
F49UA 40A
X1 1
X50A Engine Wiring Harness Junction Block
1242 RD/VT
J115
1242 RD/VT
1
B+
K67 Trailer Brake Control Module
9
5550 BK
G403
A104 Brake Master Cylinder
K160 Brake System Control Module
19
20
2224 YE/BK
2223 WH/BK
11
10
X101
2224 YE/BK
2223 WH/BK
5
2
8
47 BU
C
X88B Tow Vehicle Electrical Receptacle
2733 GN/BU
12
P16 Instrument Panel Cluster Control Module
P7 Display
A90 Logic
2733 GN/BU
2
S76 Trailer Brake Control Switch
A90 Logic
B+
F24DA 5A
X1 34
X51A Instrument Panel Wiring Harness Junction Block
4040 RD/VT
1
B+
3
2050 BK
G200

Trailering Systems Schematics (Trailer Brake Provisions (Z82 - U1D))


B+
X50A
Engine
Wiring
Harness
Junction
Block
F49UA
40A
X4 3
4142
RD/BN
J106
4142
RD/BN
X301 2
4142
RD/BN
X88B
Tow
Vehicle
Electrical
Receptacle
C
47
BU
1
47
BU
X101 7
47
BU
K9
Body
Control
Module
X3 24
3691
WH/BU
3691
WH/BU
22
WH
W24
Blunt Cut -
Trailer Brakes
Provision
G200
6331721

Description and Operation

Trailering Description and Operation

Trailering System Overview

Begin the trailering system diagnosis with Diagnostic System Check - Trailering . The Diagnostic System Check - Trailering will provide a complete strategy to locate and repair a vehicle trailering electrical fault. Not following this strategy may cause additional diagnostic time and/or misdiagnosis.

The trailering system consists of the following:

- Trailer Lighting, refer to Trailer Lamps Malfunction for additional diagnostic information.
- {JL1} Trailer Brakes, refer to Trailer Brake Malfunction for additional diagnostic information.
- Trailer Battery Charging System, refer to Trailer Battery Charging Malfunction for additional diagnostic information.
- Trailer Detection, refer to Trailer Detection Malfunction for additional diagnostic information.
- Trailer Theft Detection.

7–Terminal Tow Vehicle Electrical Receptacle Pinout

- Terminal A – Trailer Backup Lamp Control
- Terminal B – Ground
- Terminal C – Trailer Brake Control
- Terminal D – Right Trailer Stop/Turn Signal Lamp Control
- Terminal E – B+
- Terminal F – Trailer Park Lamp Control
- Terminal G – Left Trailer Stop/Turn Signal Lamp Control

Connecting Aftermarket Accessories

- Some aftermarket accessories that connect to the X88B Tow Vehicle Electrical Receptacle will be recognized by the vehicle as a trailer connected, even if the accessory is not a trailer. As a result, side blind zone detection, rear park assist, and/or rear cross traffic alert will be turned off anytime the vehicle detects a trailer/accessory is connected.
- Vehicles equipped with U1D/UET have trailer theft detection that constantly monitors trailer connected status when enabled. This is done by randomly pulsing the lighting circuits of the trailer when the vehicle is parked. As a result, some aftermarket accessories may be turned ON/OFF when connected to the vehicle with theft detection enabled.
- Vehicles equipped with U1D/UET use pulse width modulation voltage (PWM) for trailer lighting functions. Some aftermarket accessories are incompatible with PWM and may not function correctly when connected to the trailer lighting circuits of the vehicle.

Trailer Battery Charging System

Trailer battery charging is accomplished through constant battery voltage from the X50A Engine Wiring Harness Junction Block to the X88B Tow Vehicle Electrical Receptacle. Battery voltage is supplied to terminal E at the X88B Tow Vehicle Electrical Receptacle at all times. If equipped, the trailer battery will constantly be charged by the vehicle's electrical system anytime the trailer is connected. Some trailers require the B+ circuit to the X88B Tow Vehicle Electrical Receptacle for the trailer brakes to function.

Trailer Lighting and Detection With U1D/UET

Note:

- Some trailers utilize a trailer mounted control module to operate some or all of the trailer lights. These trailers may use the B+ circuit from the trailer connector to power the trailer lighting circuits. These trailers may not always be detected by the Trailer Lighting Control Module and may set faults.
- When a trailer is detected on a vehicle equipped with side blind zone detection, rear park assist, and/or rear cross traffic alert, the vehicle will automatically turn these features off. These features are turned off to prevent false detections due to the trailer obstructing the view of the sensors.
- Vehicles equipped with IOR/1FL do not come equipped with the trailering APP however may still be equipped with a K68 trailer Lamp Control Module.

The K68 Trailer Lamp Control Module is responsible for controlling the trailer lighting on vehicles with U1D/UET. The combined trailer stop/turn signal lamps of the trailer must draw at least 55mA of total current to be detected as a trailer or the Trailer Lamp Control Module will not control the lighting circuits. The Trailer Lamp Control Module receives serial data messages from the K9 Body Control Module (BCM) indicating what lamps have been activated on the vehicle. The Trailer Lamp Control Module responds by applying pulse width modulated voltage (PWM) to the appropriate control circuits for the requested lamps illuminating the lamps on the attached trailer. The Trailer Lamp Control Module constantly monitors for trailer connection status, trailer lighting faults, and trailer theft deterrent purposes. This is accomplished through the lighting circuits of the trailer to determine if a trailer is connected. When a trailer is connected, the Trailer Lamp Control Module senses the trailer connection and alerts the driver by requesting a trailer profile setup through the Trailering App, which is displayed on the infotainment screen. If a trailer is disconnected with the ignition ON, the vehicle will display multiple trailer lighting messages until a trailer is reconnected or the message is dismissed by the user. With the key OFF, the Trailer Lamp Control Module will periodically pulse the lighting circuits of the trailer to verify it is still connected. The lights on the trailer may flash at different intervals with the key OFF depending on which type of lights the trailer is built with. If a trailer is disconnected with the key ON, the vehicle will display a trailer disconnected message until a trailer is reconnected or the ignition is cycled.

Trailer Lighting Without U1D/UET

The K219 Lighting Control Module is responsible for controlling the trailer lighting on vehicles without U1D/UET. The lighting control module receives serial data messages from the K9 Body Control Module (BCM) indicating what lamps have been activated on the vehicle. The lighting control module responds by applying voltage to the appropriate relay control circuits for the requested lamps anytime the vehicle lamps are commanded ON. With the relay coil energized, the relay contacts close and allow voltage to flow through the relay illuminating the appropriate lamps on the attached trailer.

Trailer Messages

The driver information center (P16 Instrument Cluster) or infotainment screen (P17 Info Display Module) may display one or more of the following messages to the user related to trailering:

ERROR - table Title is missing for titlesource=author-entry

Trailering Message	Description
Check Trailer Left Turn Signal Lamp	The K68 Trailer Lighting Control Module detects a fault on the left trailer stop/turn lamp control circuit
Check Trailer Right Turn Signal Lamp	The K68 Trailer Lighting Control Module detects a fault on the right trailer stop/turn lamp control circuit
Check Trailer Rear Lamp	The K68 Trailer Lighting Control Module detects a fault on the trailer park lamp control circuit.
Check Trailer Reversing Lamp	The K68 Trailer Lighting Control Module detects a fault on the trailer backup lamp control circuit.
Check Trailer Brake Lamps	The K68 Trailer Lighting Control Module detects a fault on the left and/or right trailer stop/turn lamp control circuits
{JL1} Check Trailer Wiring	The K67 Trailer Brake Power Control Module detects a fault on the trailer brake control circuit or the trailer was disconnected.
Lane Change Alert Off	Reminder to the user that lane change alerts are turned off anytime a trailer is detected.
Rear Cross Traffic Alert Off	Reminder to the user that rear cross traffic alerts are turned off anytime a trailer is detected.
Rear Park Assist Off	Reminder to the user that rear park assist is turned off anytime a trailer is detected.
Remember to turn On Tow/Haul Mode	Reminder to the user to turn ON Tow/Haul Mode when towing.
{JL1} Service Trailer Brake System	The K67 Trailer Brake Power Control Module detects a fault on the trailer brake control circuit.
Service Trailer Tire Monitor System	The K214 Trailer Tire Pressure Indicator Module detects one or more issues with the trailer tire pressure monitoring system.
Trailer Detected	The K68 Trailer Lighting Control Module detects a trailer has been connected to the X88B Tow Vehicle electrical Receptacle.
{JL1} Trailer Brakes Detected	The K67 Trailer Brake Power Control Module detects a trailer with trailer brakes has been connected to the X88B Tow Vehicle electrical Receptacle.
Trailer Disconnected Check Connection	The K68 Trailer Lighting Control Module detects a trailer has been disconnected from the X88B Tow Vehicle electrical Receptacle.
Trailer Tire Pressure High	The K214 Trailer Tire Pressure Indicator Module detects one or more of the trailer tire pressures is high.
Trailer Tire Pressure Low	The K214 Trailer Tire Pressure Indicator Module detects one or more of the trailer tire pressures is low.
Trailer Tire Sensor Fault	The K214 Trailer Tire Pressure Indicator Module detects one or more of the trailer tire pressure sensors has a fault.
Trailer Tire Temperature High	The K214 Trailer Tire Pressure Indicator Module detects one or more of the trailer tire temperatures is too high.

Trailer Theft Detection (With U1D/UET Only)

Trailer theft monitoring can be turned ON and OFF through the vehicle Trailer App. When enabled, any time the trailer theft deterrent system is armed, the trailer lighting circuits are constantly monitored to determine if a trailer is connected for trailer theft deterrent purposes. With the key OFF, the K68 Trailer Lamp Control Module will randomly pulse the lighting circuits of the trailer to verify it is still connected by monitoring the voltage drop of the circuit. Depending on the configuration of the trailer lights, the trailer lights may randomly flash as part of the trailer theft deterrent function. These flashes correspond to when the K68 Trailer Lamp Control Module pulses the lighting circuits to ensure the trailer is still connected and is considered normal. If the trailer is disconnected while the trailer theft deterrent system is armed, the vehicle will flash the exterior lights and cycle the horn to alert of a trailer theft event. Refer to Theft Systems Description and Operation for more information on the content theft deterrent system.

Trailer Brakes (JL1)

The vehicle is equipped with the following trailer braking components:

- K160 Brake System Control Module
- K67 Trailer Brake Control Module
- S76 Trailer Brake Control Switch
- Trailer Brake Driver Information Center Display

Trailer Brake Circuits

- Circuit 2223 is the trailer brake apply signal circuit. The K160 Brake System Control Module receives vehicle braking force data and/or data from the application of the manual trailer brake slide lever. The brake system control module responds by applying the appropriate amount of pulse width modulated (PWM) voltage based on the amount of trailer brake application desired. The K67 Trailer Brake Power Control Module responds to the signal circuit by applying the appropriate amount of PWM voltage to the trailer auxiliary control circuit 47.
- Circuit 2224 is the trailer brake enable signal circuit. The K160 Brake System Control Module applies voltage to the enable circuit anytime a LIN data communication fault is not present, a trailer is connected, and the vehicle brakes are being applied. The enable circuit must have voltage applied to it before the K133 Trailer Brake Power Control Module applies the appropriate amount of pulse width modulated (PWM) voltage to the trailer auxiliary control circuit 47.
- Circuit 2733 is the brake system control module LIN bus 2 circuit. The K160 Brake System Control Module, K67 Trailer Brake Power Control Module, and the S76 Trailer Brake Control Switch all communicate through the brake system control module LIN bus 2 circuit. If the LIN bus has a fault on the circuit, trailer braking will be disabled until the fault is repaired.
- Circuit 47 is the trailer auxiliary control circuit. The K133 Trailer Brake Power Control Module responds to signal circuit 2223 and enable circuit 2224 by applying the appropriate amount of PWM voltage to the trailer auxiliary control circuit. A properly functioning trailer will apply the appropriate amount of braking force to the brakes of the trailer.

The Trailer Brake Control System is compatible with two types of Trailer Brake Systems as listed below:

1. **Electric Brakes** A controlled electrical output signal energizes an electric-magnet/lever arm assembly that directly actuates the brake mechanism. The GDS name for this system is “Electromagnetic Brakes”.
2. **Electric Over Hydraulic Brakes** A controlled electrical output signal energizes a remote, trailer mounted hydraulic pump to build brake pressure in a closed hydraulic system on the trailer. The hydraulic fluid pressure actuates the brake mechanism. The GDS name for this system is “Electrohydraulic Brakes”.

Trailer Brake Output Versus Trailer Brake Type

- The trailer brake system characterizes the trailer brakes as either Electric Brake or Electric Over Hydraulic Brake automatically. This characterization may be affected by the number, type, and age of the trailer brake magnets, as well as any other devices installed on the trailer brakes (i.e. adapters for Electric Over Hydraulic brake functionality).
- The trailer brake system is fully operational with either characterization.
- Sliding the manual trailer brake apply lever will produce output at zero speed for either characterization.

The user gain allows the driver to adjust the amount of trailer brake output to match the trailer load and road surface. The controller determines the desired trailer brake output and provides a control signal to the K67 Trailer Brake Control Module (TBPM). The K67 Trailer Brake Control Module amplifies the signal and provides the output required to activate the Electric or Electric Over Hydraulic trailer brakes.

The trailer brake control can support up to a maximum of four axles with electric trailer brakes (8 brake magnets).

Connecting a trailer that is not compatible with the trailer brake system may result in reduced or complete loss of trailer braking. There may be an increase in stopping distance or trailer instability which could result in personal injury or damage to the vehicle, trailer or other property. An aftermarket controller may be available for use with incompatible trailer brake systems.

To determine the type of brakes on your trailer and the availability of controllers, check with your trailer manufacturer or dealer. Do not power up an aftermarket controller with the factory brake controller at the same time.

Trailer Brake Control Panel

The S76 Trailer Brake Control Switch contains the trailer gain and manual apply switches. It is located in the vehicle center stack. Refer to the owner's manual for more information on the location. The control panel and switches allows you to adjust the amount of output, referred to as trailer gain, available to the Electric or Electric Over Hydraulic brakes. It also allows you to manually apply the trailer brakes. The trailer brake control switch is used along with the trailer brake display page on the driver information center to adjust and display power output to the trailer brakes.

Manual Trailer Brake Apply

The manual trailer brake apply lever is located on the S76 Trailer Brake Control Switch and is used to apply the trailer's Electric or Electric Over Hydraulic brakes independent of the vehicle's brakes. This lever is used in the trailer gain adjustment procedure to properly adjust the power output to the trailer brakes.

Sliding the lever will apply only the trailer brakes. The power output to the trailer is indicated in the trailer brake display page in the Driver Information Center (DIC). If the vehicle's service brakes are applied while using the manual trailer brake apply lever, the trailer brake control output power will be the greater of the two.

The trailer and the vehicle's brake lamps will come on when either the vehicle's braking or manual trailer brakes are applied.

Trailer Brake Gain Adjustment

Trailer gain should be set for a specific trailering condition and must be adjusted any time vehicle loading, trailer loading or road surface conditions change. It is important to re-adjust trailer gain any time the tow vehicle, trailer loading or road surface conditions change or if you notice trailer wheel lock-up at any time while you are towing.

Setting the trailer gain properly is needed for the best trailer stopping performance. A trailer that is over-gained may result in locked trailer brakes. A trailer that is under-gained may result in not enough trailer braking. Both of these conditions may result in poor stopping and stability of the vehicle and trailer.

Trailer Gain Adjustment Procedure

- Adjust trailer gain in 0.5 step increments up to 10 gain setting by using the gain adjustment +/− buttons on the trailer brake control panel switch. Pressing and holding a gain button will cause the trailer gain to continuously increment or decrement. To turn the output to the trailer off, set the gain to zero.
- Drive the tow vehicle and trailer combination on a level surface representative of the towing condition and free of traffic at approximately 32–40 km/h (20–25 mph) and fully apply the manual trailer brake apply lever mechanism located on the trailer brake control panel switch. Adjusting the trailer gain at slower speeds may result in an incorrect gain setting.
- Adjust the trailer gain to just below the threshold of trailer wheel lock-up . Trailer wheel lock-up may not occur if towing a heavily loaded trailer. In this case, adjust the trailer gain to the highest allowable setting for the towing condition.

Trailer Brake Gain and Output Display

This display menu can be accessed by scrolling through the DIC menu, or any time the trailer gain +/− button is depressed, or the manual trailer brake apply lever is actuated. The trailer output is displayed from 0 to full output and indicates the output power provided to the trailer brakes, relative to the gain setting.

After the electrical connection is made to a trailer equipped with electric brakes or electric over hydraulic brakes, the TRAILER CONNECTED message will be displayed momentarily on the DIC. The Trailer Brake Display Page can be selected on the DIC showing TRAILER GAIN and OUTPUT, after all vehicle related service messages are acknowledged by the driver. Depending on which instrument panel cluster is in the vehicle, the DIC may display dashed lines, a greyed out display, or it may be blank signifying a disconnected trailer or a trailer brake fault condition.

Trailer Brake Driver Information Center Indicators and Messages

Trailer Brake Detection

The K67 Trailer Brake Control Module constantly monitors the trailer auxiliary control circuit from Terminal C at the X88B Tow Vehicle electrical Receptacle. When a trailer is connected with trailer brakes, the K67 Trailer Brake Control Module senses the connection and alerts the driver with a Trailer Connected message. If the K67 Trailer Brake Control Module senses a fault, or the trailer becomes disconnected, the vehicle will alert the driver with a Check Trailer Wiring message.

The following indicators are used to inform the driver of several different conditions:

Trailer Connected

This message will be briefly displayed when a trailer with Electric or Electric Over Hydraulic brakes is first connected to the vehicle. This message will automatically turn off in about ten seconds. The driver can also acknowledge this message before it automatically turns off.

Check Trailer Wiring

This message will be displayed if:

- The system detects that a trailer with Electric or Electric Over Hydraulic brakes is connected to the vehicle and then the trailer harness becomes disconnected from the vehicle.
- The trailer connection is recognized initially and then a disconnect occurs while the vehicle is stationary. This message will automatically turn off in about thirty seconds. This message will also turn off if the driver selects to turn this message off or if the trailer harness is reconnected.

- A disconnect of the trailer wiring harness occurs while the vehicle is moving. The Check Trailer Wiring message will continue until the ignition is turned off. The message will also turn off if the driver selects to turn this message off or it the trailer harness is re-connected.
- There is an electrical fault in the wiring to the electric trailer brakes. The Check Trailer Wiring message will continue as long as there is an electrical fault in the trailer wiring. This message will also turn off if the driver acknowledges this message off.
- A poor connection at the 7–way connector may cause the Check Trailer Wiring message. Some aftermarket 7–way trailer side connector adapters or plugs may cause deformation or excessive wear to the vehicle's trailer terminals. It is recommended that you use an OEM or Pollak heavy duty 7–way trailer side connector adapter.

Service Trailer Brake System

This message will be displayed when there is a problem with the trailer brake control system. The trailer brake system may not be fully functional, or may not be functioning at all. The trailer brake system is designed to provide trailer braking, if possible, even when faults prevent it from being fully functional. This reduced functionality includes:

1. Providing trailer braking when the master cylinder pressure or brake pedal switch are faulted.
2. Providing trailer braking when hill start assist and trailer sway control communication is faulted.
3. Providing trailer braking when certain manual trailer brake apply lever faults are present.

Trailering Diagnostic Tools

In some situations when diagnosing trailer tire pressure monitoring, trailer lighting, or integrated trailer brakes, it may be necessary to connect the vehicle to a trailer to confirm proper operation. Performing this activity may prove difficult in the service environment since trailers are not often available for diagnostic use, may have existing electrical issues outside of the issues a technician is attempting to diagnose, or simply may be too unwieldily to connect for diagnosis.

With all this in mind, it may be helpful to build or create a tool that can be plugged into the vehicle's trailer connector and simulate a connected trailer. This tool would include park lamps, stop lamps, and a reverse lamp for lighting and trailer tire pressure monitoring diagnosis. It can be expanded to include trailer brake magnets to diagnose integrated trailer brake concerns. Also, an additional lamp can be included to diagnose the B+ circuit to the trailer.

Trailer issues are NOT covered under warranty, but these tools may be used to verify the vehicle is functioning properly and to help the customer understand and correct any trailer related issues if they so choose.

Available Trailer Presence Simulator Tool

Illustration	Tool Number/Description
5166189	*EL-52641* Trailer Presence Simulator Tool

Simulated Trailer Lighting

Creating a tool to simulate a connected trailer can be used to diagnose issues with trailer lighting, trailer brake (if equipped), the Trailering App (if equipped), and trailer tire pressure monitoring system (if equipped).

If the vehicle is equipped with a K68 Trailer Lamp Control Module (U1D/UET), the module monitors the current on the lighting circuits to determine a trailer has been connected. The Trailer Lamp Control Module pulses current on the trailer lighting circuits every 42 minutes to monitor for a connected trailer. If a current draw greater than 55mA is detected, the Trailer Lamp Control Module recognizes this as a connected trailer. This will enable any trailer lighting controlled by the Trailer Lamp Control Module. The Center Stack Module will also use this trailer detection as a cue to enable the Trailering App and trailer tire pressure monitoring functions.

Creating a Simulated Trailer Lighting Tool

Parts needed:

- 7-way RV trailer connector Qty: 1

  Note: The combination trailer stop/turn, and backup lamps must draw at least 55mA of total current to be detected as a trailer. Some LED combination lamps will not draw enough current. If an LED combination lamp is used, make sure it draws at least 55mA. A load resistor can be added to the circuit if necessary to obtain the correct load.
- Combination trailer park/stop/turn lamp (greater than 55mA drawn when on) Qty: 2
- Reverse lamp Qty: 1
- 12 gauge wire and terminals/connectors Qty: As needed
- 18 gauge wire and terminals/connectors Qty: As needed
- Mounting board Qty: 1

1. Connect a 12 gauge wire to the ground terminal of the 7-way trailer connector and the ground circuit of each combination trailer park/stop/turn lamp and the reverse lamp in parallel.
2. Connect an 18 gauge wire between the park lamp terminal of the 7-way trailer connector and the park lamp circuit of each combination trailer park/stop/turn lamp in parallel.

3. Connect an 18 gauge wire between the left turn/stop lamp terminal of the 7-way trailer connector and the turn/stop lamp circuit of left trailer park/stop/turn lamp.
4. Connect an 18 gauge wire between the right turn/stop lamp terminal of the 7-way trailer connector and the turn/stop lamp circuit of right trailer park/stop/turn lamp.
5. Connect an 18 gauge wire between the reverse lamp terminal of the 7-way trailer connector and the reverse lamp.

   Note: A combination trailer lighting and trailer brake tool can be created on the same mounting board.

6. Mount the left combination trailer park/stop/turn lamp, right combination trailer park/stop/turn lamp, and reverse lamp to the mounting board.
7. Plug the 7-way RV trailer connector to the vehicle and verify functionality.

Simulated Trailer Brakes

Creating a tool to simulate trailer brakes can be used to diagnose trailer brake issues.

The trailer brake control system is compatible with two types of trailer brake systems: electromagnetic or electro-over hydraulic trailer brakes. The Brake System Control Module must determine which type of brakes the trailer is equipped with so the system can output correctly for the trailer's brake system. Because the Brake System Control Module has to determine the type of trailer brake system that is being used, it can be sensitive to a variety of trailer wiring issues.

The Trailer Brake Control Module continuously sends a test pulse out on the trailer brake control circuit (circuit 47) to determine if a trailer with trailer brakes has been connected. How the pulse reacts when a trailer is connected is how the Trailer Brake Control Module determines which type of braking system the trailer is equipped with.

Even after the system detects the trailer, Trailer Brake Control Module will continue to send this test pulse on the trailer brake control circuit, which now is monitoring both the truck and trailer circuitry. The trailer brake control circuit continues to be monitored for any faults so the driver can be notified of any issues that may occur within the truck or trailer, as well as, to determine when the trailer is disconnected from the truck.

Creating a Simulated Trailer Brake Tool

Parts needed:

- 7-way RV trailer connector Qty: 1
- Electric trailer brake magnets Qty: 2, 4, 6, or 8
- Reverse lamp Qty: 1
- Mounting board Qty: 1
- 12 gauge wire and terminals/connectors Qty: As needed

1. Connect a 12 gauge wire to the ground terminal of the 7-way trailer connector.
2. Connect a 12 gauge wire to the brake controller output terminal of the 7-way trailer connector.

   Note: The trailer brake magnets must be connected in parallel. Connecting in series will create an excessive current draw and disable the trailer brake system.

3. Connect the trailer brake magnets to the 12 gauge wires from the 7-way trailer connector in parallel.

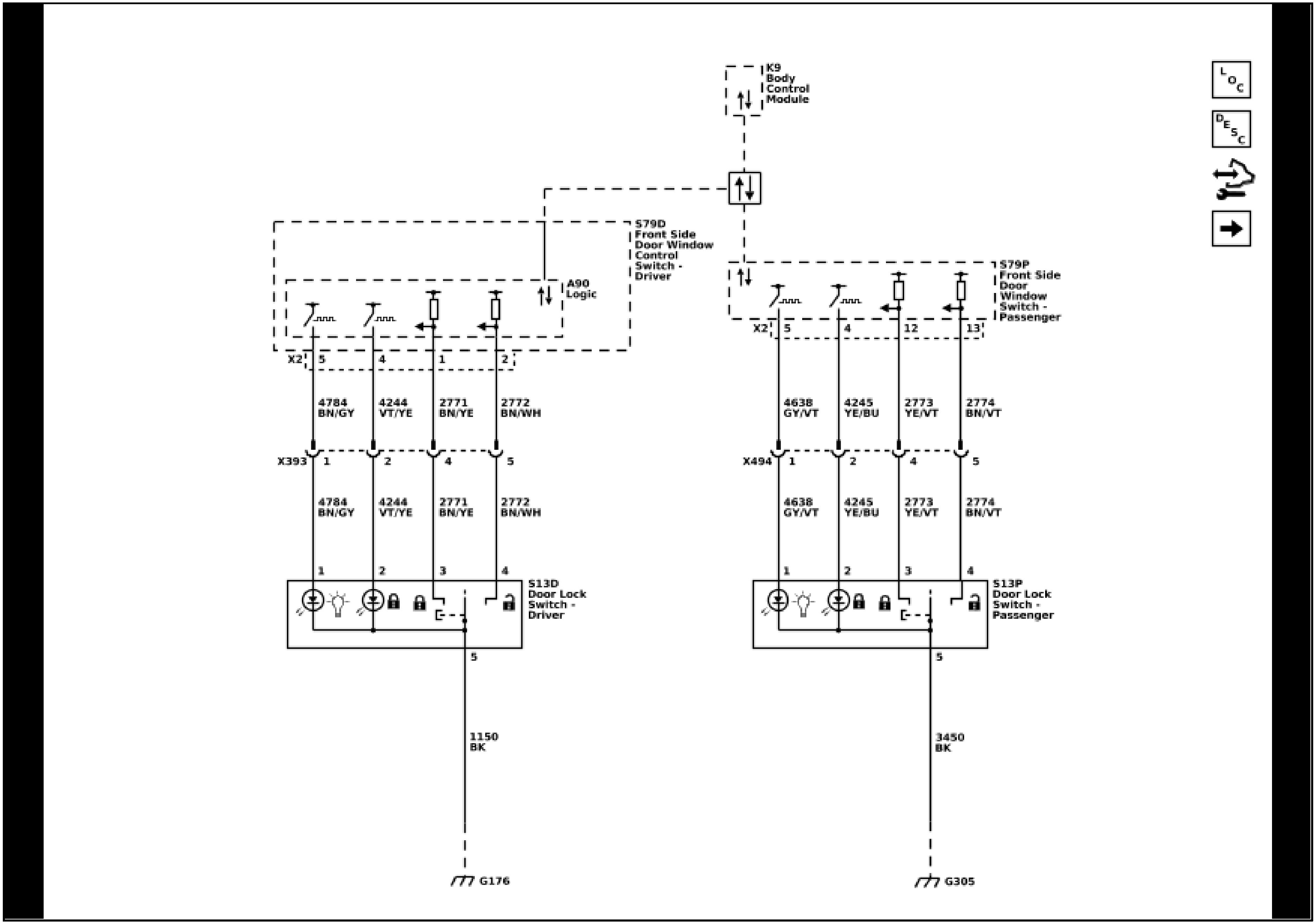
   Note: A combination trailer lighting and trailer brake tool can be created on the same mounting board.

4. Mount the trailer brake magnets to the mounting board.
5. Plug the 7-way RV trailer connector to the vehicle and verify functionality.

Vehicle Access

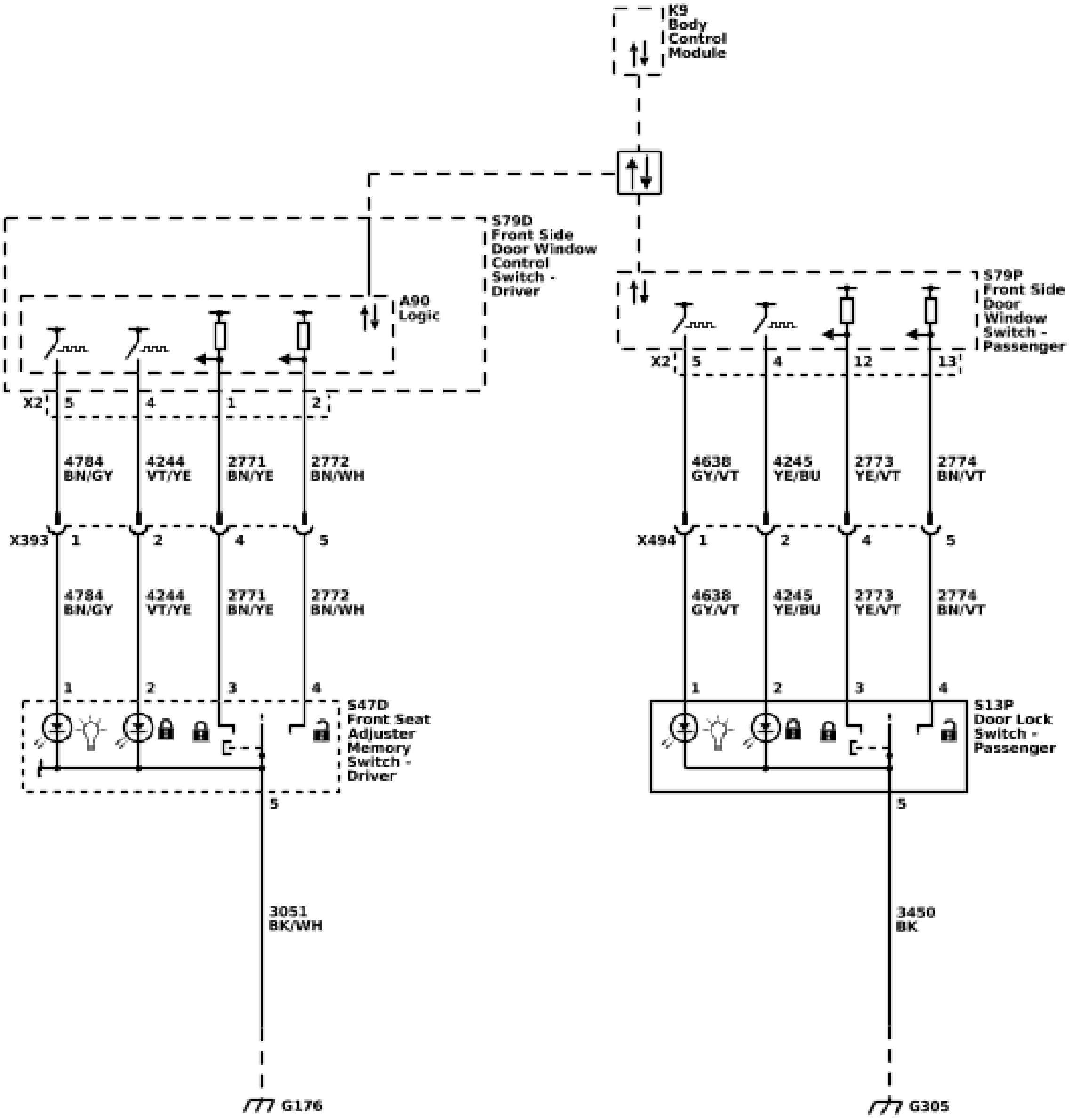
Schematic and Routing Diagrams

Door Lock/Indicator Schematics (Interior Control Switches and Indicators (- A45))


K9 Body Control Module
S79D Front Side Door Window Control Switch - Driver
A90 Logic
X2
5
4
1
2
4784 BN/GY
4244 VT/YE
2771 BN/YE
2772 BN/WH
X393
1
2
4
5
S13D Door Lock Switch - Driver
3
1150 BK
G176
S79P Front Side Door Window Switch - Passenger
12
13
4638 GY/VT
4245 YE/BU
2773 YE/VT
2774 BN/VT
X494
S13P Door Lock Switch - Passenger
3450 BK
G305

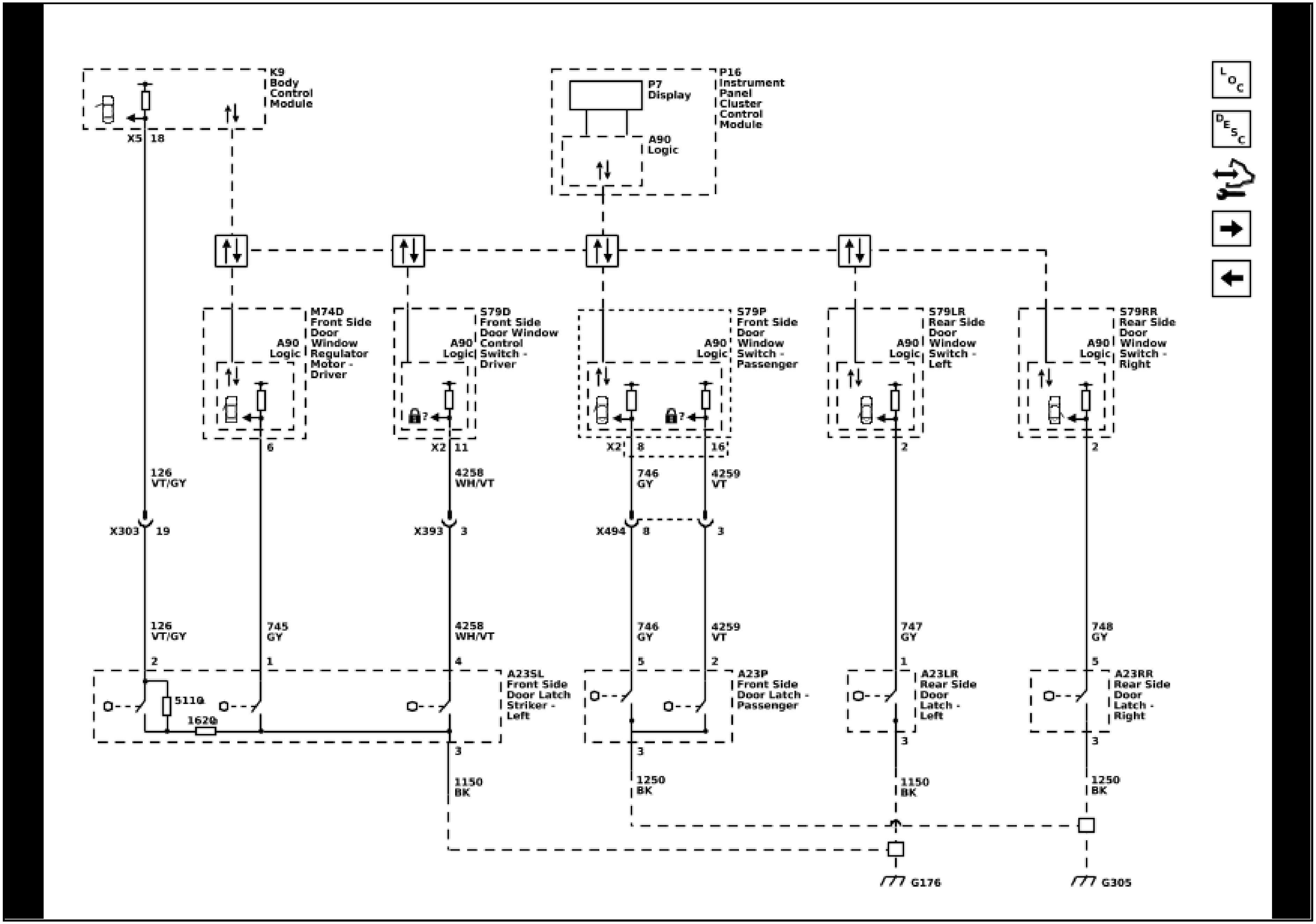
6331722

Door Lock/Indicator Schematics (Interior Control Switches and Indicators (A45))

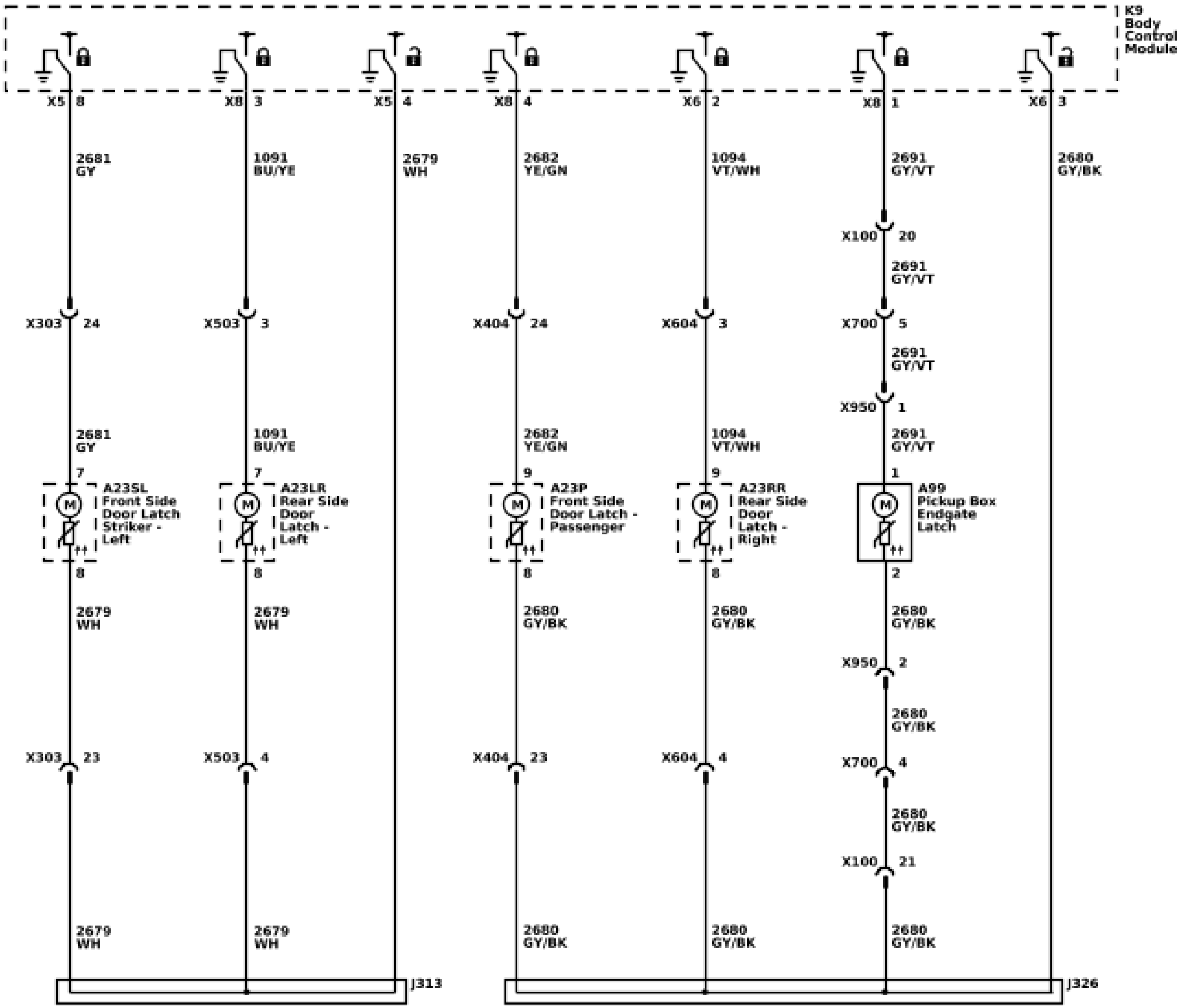

K9
Body
Control
Module
S79D
Front Side
Door Window
Control
Switch -
Driver
A90
Logic
X2
5
4
1
2
4784
BN/GY
4244
VT/YE
2771
BN/YE
2772
BN/WH
X393
1
2
4
5
4784
BN/GY
4244
VT/YE
2771
BN/YE
2772
BN/WH
1
2
3
4
S47D
Front Seat
Adjuster
Memory
Switch -
Driver
5
3051
BK/WH
G176
S79P
Front Side
Door
Window
Switch -
Passenger
X2
5
4
12
13
4638
GY/VT
4245
YE/BU
2773
YE/VT
2774
BN/VT
X494
1
2
4
5
4638
GY/VT
4245
YE/BU
2773
YE/VT
2774
BN/VT
1
2
3
4
S13P
Door Lock
Switch -
Passenger
5
3450
BK
G305

6331723

Door Lock/Indicator Schematics (Ajar Switches and Lock Status)

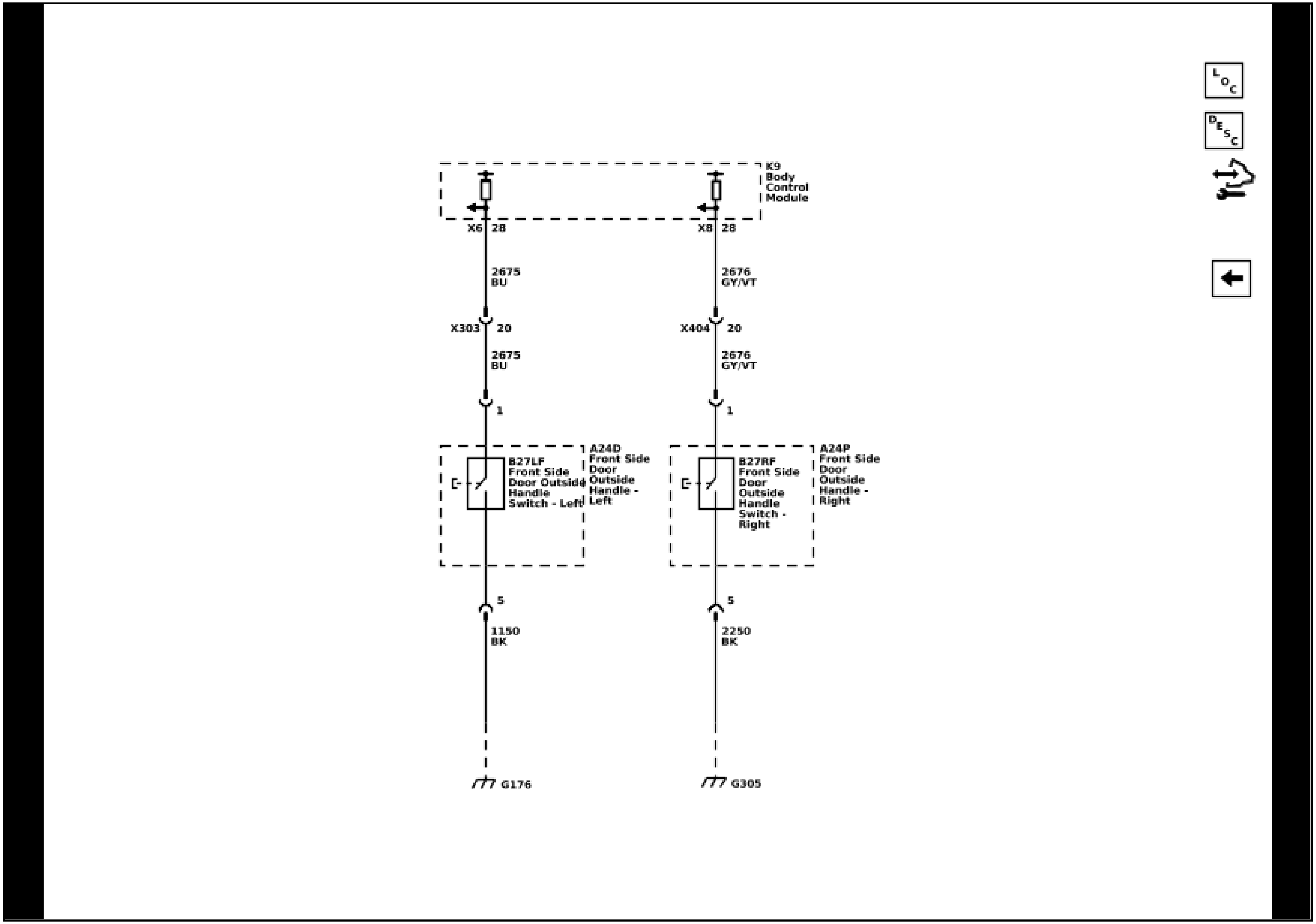

K9 Body Control Module
X5 18
P7 Display
P16 Instrument Panel Cluster Control Module
A90 Logic
M74D Front Side Door Window Regulator Motor - Driver
A90 Logic
6
S79D Front Side Door Window Control Switch - Driver
A90 Logic
X2 11
S79P Front Side Door Window Switch - Passenger
A90 Logic
X2 8
16
S79LR Rear Side Door Window Switch - Left
A90 Logic
2
S79RR Rear Side Door Window Switch - Right
A90 Logic
2
126 VT/GY
4258 WH/VT
746 GY
4259 VT
X303 19
X393 3
X494 8
3
126 VT/GY
745 GY
4258 WH/VT
746 GY
4259 VT
747 GY
748 GY
2
1
4
5
2
1
5
511Ω
162Ω
A23SL Front Side Door Latch Striker - Left
A23P Front Side Door Latch - Passenger
A23LR Rear Side Door Latch - Left
A23RR Rear Side Door Latch - Right
3
3
3
3
1150 BK
1250 BK
1150 BK
1250 BK
G176
G305
6331724

Door Lock/Indicator Schematics (Actuators)

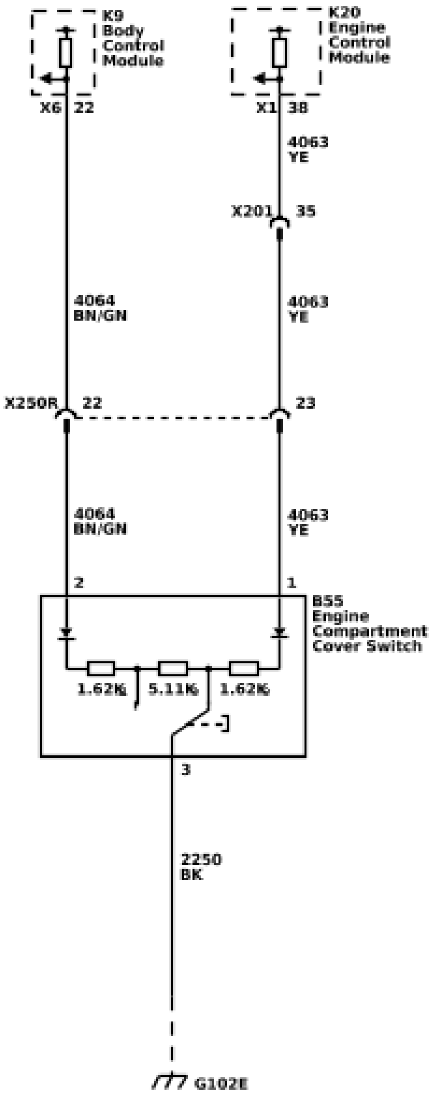

K9 Body Control Module
X5 8
X8 3
X5 4
X8 4
X6 2
X8 1
X6 3
2681 GY
1091 BU/YE
2679 WH
2682 YE/GN
1094 VT/WH
2691 GY/VT
2680 GY/BK
X100 20
X303 24
X503 3
X404 24
X604 3
X700 5
X950 1
7
9
1
A23SL Front Side Door Latch Striker - Left
A23LR Rear Side Door Latch - Left
A23P Front Side Door Latch - Passenger
A23RR Rear Side Door Latch - Right
A99 Pickup Box Endgate Latch
M
8
2
X950 2
X303 23
X503 4
X404 23
X604 4
X700 4
X100 21
J313
J326

6331725

Door Lock/Indicator Schematics (Door Handle Switches)


K9
Body
Control
Module
X6 28
X8 28
2675
BU
2676
GY/VT
X303 20
X404 20
2675
BU
2676
GY/VT
1
1
B27LF
Front Side
Door Outside
Handle
Switch - Left
A24D
Front Side
Door
Outside
Handle -
Left
B27RF
Front Side
Door
Outside
Handle
Switch -
Right
A24P
Front Side
Door
Outside
Handle -
Right
5
5
1150
BK
2250
BK
G176
G305
6331726

Hood Latch Schematics (Engine Compartment Cover Switch)


K9
Body
Control
Module
X6 22
4064
BN/GN
X250R 22
4064
BN/GN
2
K20
Engine
Control
Module
X1 38
4063
YE
X201 35
4063
YE
23
4063
YE
1
B55
Engine
Compartment
Cover Switch
1.62K
5.11K
1.62K
3
2250
BK
G102E

6331727

Description and Operation

Door Ajar Indicator Description and Operation

Door Ajar Indicator System Components

The door ajar indicator system consists of the following components:

- Body control module (BCM)
- Instrument cluster
- Driver door latch
- Passenger door latch
- Left rear door latch
- Right rear door latch
- Driver side door window switch
- Passenger side door window switch
- Left rear side door window switch
- Right rear side door window switch

Door Ajar Indicator Operation

The side door window switches each provide a 7.5 V signal to their respective door ajar switch signal circuits. The door ajar switches are integral to each door latch assembly. When a door is opened, the normally open door ajar switch closes. With the door ajar switch closed, ground is provided to the door ajar switch signal circuit and the voltage within the signal circuit drops. The appropriate side door window switch will detect the voltage drop and will send a serial data message to the body control module which will then send a message to the instrument cluster to command the door ajar message

Door Ajar Indicator Description and Operation

Door Ajar Indicator System Components

The door ajar indicator system consists of the following components:

- Body control module (BCM)
- Instrument cluster
- Driver door latch
- Passenger door latch
- Left rear door latch
- Right rear door latch
- Driver window motor
- Passenger side door window switch
- Left rear side door window switch
- Right rear side door window switch

Driver Door Ajar

The window motor supplies a 7.5 V signal to the door ajar switch within the door latch, when a door is open the door ajar switch closes pulling the 7.5 V signal low. When the window motor detects the drop in the 7.5 V signal circuit, it will then communicate this status to the BCM via local interconnect network (LIN) bus. The BCM communicates with the instrument cluster via serial data message. The instrument cluster, upon receipt of this serial data message, will illuminate the door ajar indicator and also send a serial data message to the radio to activate the door ajar audible warning when the vehicle speed is greater then 8 km/h (5 mph).

Passenger and Rear Doors Ajar

The passenger and rear side door window switches each provide a 7.5 V signal to their respective door ajar switch signal circuits. The passenger and rear door ajar switches are integral to each door latch assembly. When the passenger door or a rear door is opened, the normally open door ajar switch closes. With the door ajar switch closed, ground is provided to the door ajar switch signal circuit and the voltage within the signal circuit drops. The passenger or rear side door window switches will detect the voltage drop and will send a serial data message to the body control module which will then send a message to the instrument cluster to command the door ajar message

Endgate Description and Operation

Endgate Lock System Components

- Body control module (BCM)
- Pickup box endgate latch

If equipped, the locking and unlocking of the endgate is a function of the power door lock system. The pickup box endgate latch unlock control is supplied by the passenger door unlock control circuit and the rear closure actuator lock control circuit. The BCM, upon receipt of a lock switch lock or unlock signal, will supply battery voltage to the passenger door lock actuator unlock or rear closure actuator lock control circuits. Since the opposite side of the lock actuator is connected to ground through the other lock actuator control circuit, the passenger door and endgate will then lock or unlock as commanded.

Hood Ajar Indicator Description and Operation

Hood Ajar Switch

The body control module (BCM) applies B+ to the hood ajar signal circuit and monitors the voltage to determine the position of the hood. When the hood is open, the switch is open and voltage remains high. When the hood is closed, the switch is closed and the voltage is pulled low.

The BCM uses the hood ajar switch as a content theft deterrent alarm trigger.

Hood Ajar Indicator/Message

When the hood is ajar, a message is displayed on the DIC or the hood ajar indicator will be illuminated.

Power Door Locks Description and Operation

Door Lock System Components

The power door lock system consists of the following components:

- Driver door lock switch
- Passenger door lock switch
- Driver front side door window control switch
- Passenger front side door window switch
- Driver front side door latch
- Passenger front side door latch
- Left rear side door latch
- Right rear side door latch
- Pickup box endgate latch (A91)
- Exterior door handle switches (AVJ)
- Body control module

Door Lock System Controls

The power door lock system can be controlled by any of the following:

- Power door lock switch activation
- Keyless entry lock or unlock command
- Delayed locking command
- Automatic door lock command
- When the OnStar® system is used to unlock the driver door

Door Lock and Unlock Operation

The driver or passenger front side door window control switch will monitor the voltage of their respective door lock switches, when the driver or passenger door lock switch is activated in the lock or unlock position the signal voltage will be pulled low, the corresponding front side door window control switch will detect the voltage drop in the signal circuit and will send a serial data message to the body control module requesting the door lock or unlock command.

The body control module upon receipt of a lock or unlock request, will supply battery voltage to the door lock actuator and if equipped the endgate latch lock or unlock control circuits. Since the opposite side of the lock actuator is connected to ground through the other lock actuator control circuit, the doors, and fuel filler door will then lock or unlock as commanded.

The following control circuits are used to operate the door lock actuators:

- Driver door unlock only
- Passenger and rear door unlock
- All door lock

This sequence and be modified through the personalization settings

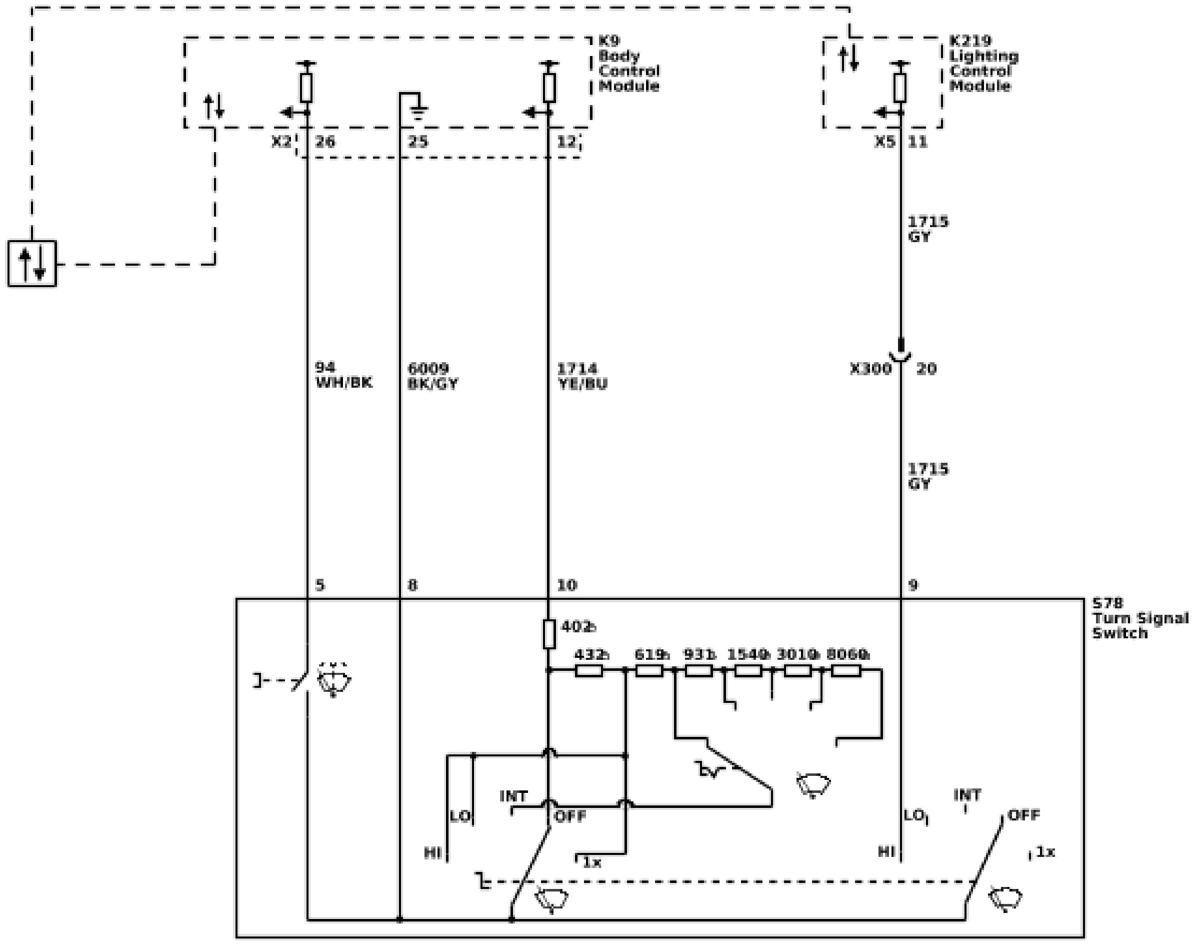
Passive Door Lock/Unlock Operation (AVJ)

The exterior door handle switch signal circuits provide inputs to the body control module when the exterior door handle switches are activated. These inputs allow the body control module to detect a door lock or a door unlock request. The body control module provides a 7 V signal to each exterior door handle switch via the door handle switch signal circuits. When a door handle switch is pressed, the switch closes and the voltage signal within the signal circuit is pulled to ground. The body control module will detect the voltage drop and a low frequency antenna will transmit a challenge to the keyless entry transmitter. If the challenge is met, the keyless entry transmitter will respond, and the body control module will command the door(s) to be locked or unlocked

Wipers and Washers

Schematic and Routing Diagrams

Wiper/Washer Schematics (Wiper/Washer Control)


K9
Body
Control
Module
X2 26
25
12
K219
Lighting
Control
Module
X5 11
1715
GY
X300 20
1715
GY
94
WH/BK
6009
BK/GY
1714
YE/BU
5
8
10
9
S78
Turn Signal
Switch
402Ω
432Ω
619Ω
931Ω
1540Ω
3010Ω
8060Ω
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LO
OFF
HI
1x
LO
INT
OFF
HI
1x

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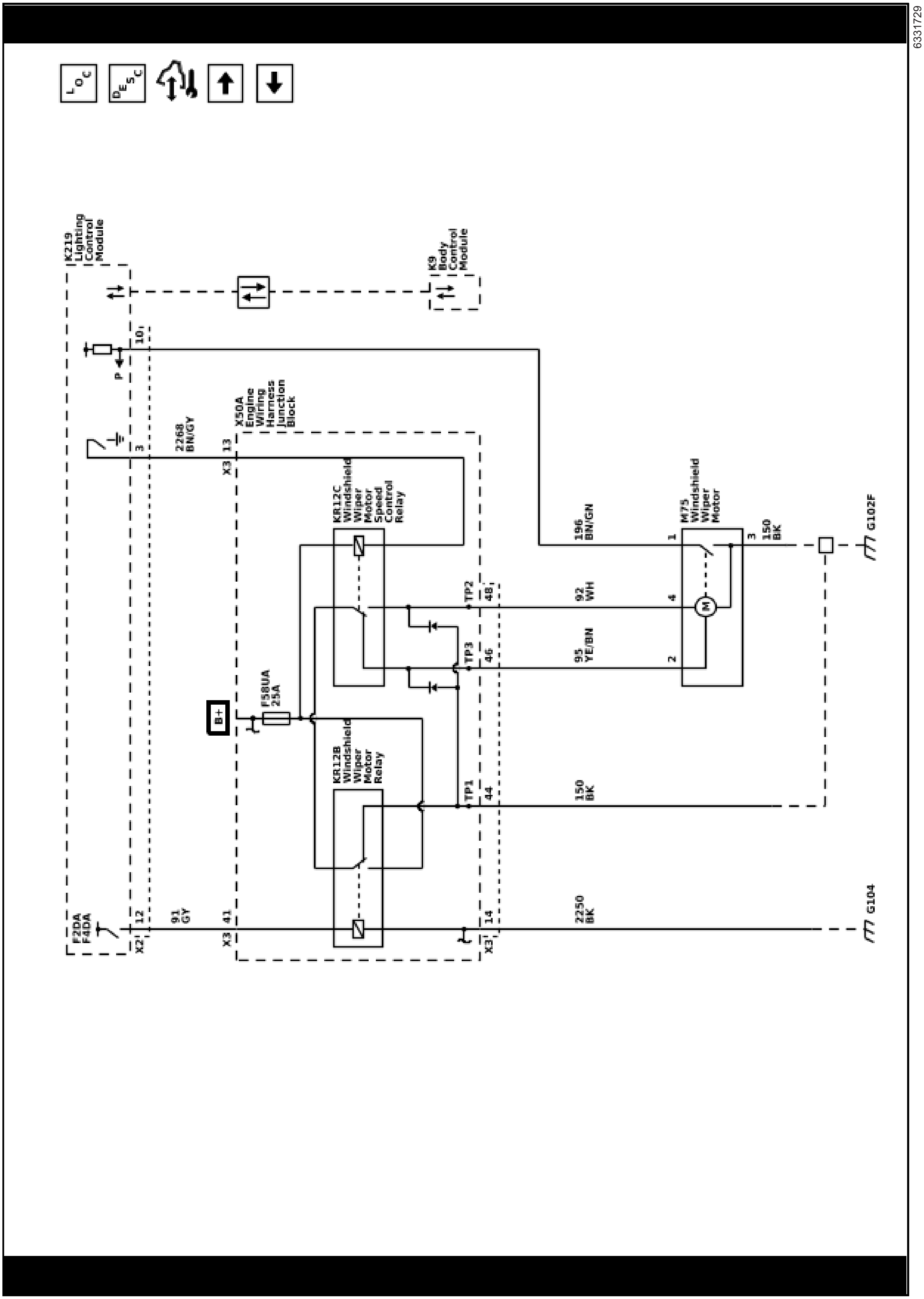
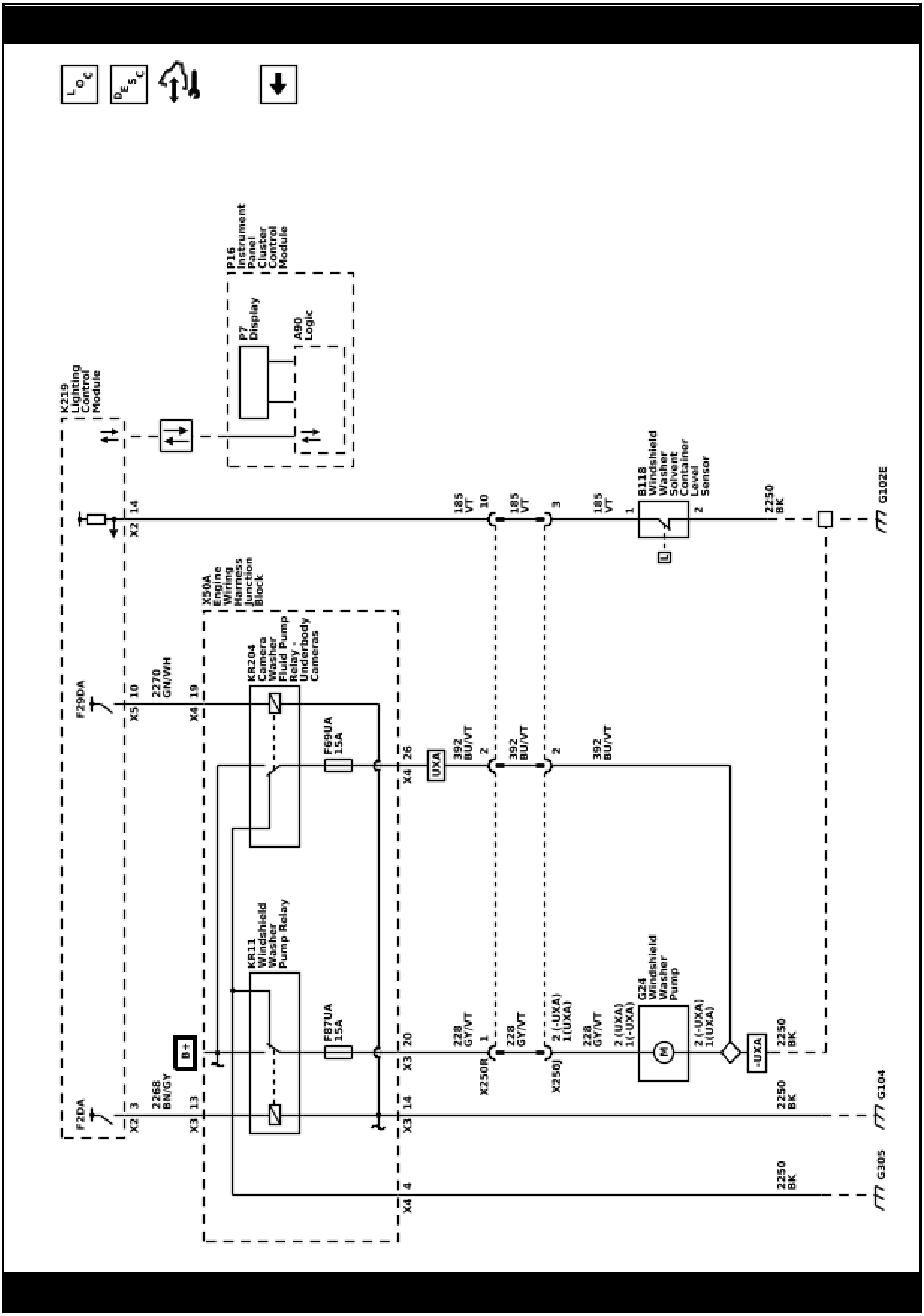
Wiper/Washer Schematics (Wiper Motor)


6331729
K219 Lighting Control Module
K9 Body Control Module
P
10
3
2268 BN/GY
X3 13
X50A Engine Wiring Harness Junction Block
KR12C Windshield Wiper Motor Speed Control Relay
KR12B Windshield Wiper Motor Relay
B+
F58UA 25A
TP2 48
TP3 46
TP1 44
X3 14
92 WH
95 YE/BN
150 BK
196 BN/GN
M75 Windshield Wiper Motor
1
4
2
3
M
150 BK
G102F
F2DA F4DA
X2 12
91 GY
X3 41
2250 BK
G104

Wiper/Washer Schematics (Washer Pump)


6331730
K219 Lighting Control Module
P16 Instrument Panel Cluster Control Module
P7 Display
A90 Logic
X50A Engine Wiring Harness Junction Block
KR204 Camera Washer Fluid Pump Relay - Underbody Cameras
KR11 Windshield Washer Pump Relay
F29DA
F2DA
B+
F69UA 15A
F87UA 15A
X5 10
X2 14
X2 3
X4 19
X3 13
X4 26
X3 20
X3 14
X4 4
2270 GN/WH
2268 BN/GY
UXA
-UXA
185 VT
392 BU/VT
228 GY/VT
2250 BK
X250R
X250J
10
3
2
1
2 (-UXA) 1(UXA)
2 (UXA) 1(-UXA)
2 (-UXA) 1(UXA)
B118 Windshield Washer Solvent Container Level Sensor
G24 Windshield Washer Pump
M
L
G102E
G104
G305

Description and Operation

Wiper/Washer System Description and Operation

Windshield Wiper Operation

The windshield wipers system allows the driver to clear the vehicle’s windshield using a discrete switch or through an automatic rain sensing system. The windshield wiper system functions through a primary control, but also allows redundant high speed-only operation in the event of a system fault. The wiper systems uses the S82 Windshield Wiper/Washer Switch as the primary means of driver control, along with the B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor to modulate intermittent wiper operation. The S82 Windshield Wiper/Washer Switch is a discrete input to the K9 Body Control Module. The K9 Body Control Module communicates with the K219 Lighting Control Module over CAN, and with the B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor over LIN, to control wiper activation.

Low Speed Wiper Operation

With the S82 Windshield Wiper/Washer Switch in the low speed position, the discrete signal circuit to the K9 Body Control Module is pulled down through two resistors in a resistor ladder to a low reference provided by the K9 Body Control Module. The K9 Body Control Module communicates with the K219 Lighting Control Module over CAN, requesting consistent low speed wiping operation. To initiate low speed operation, the K219 Lighting Control Module energizes the KR12B Windshield Wiper Relay. This allows battery voltage from the wiper fuse to be applied through the switched contacts of the KR12B Windshield Wiper Relay, through the normally closed contacts of the KR12C Windshield Wiper Speed Control Relay, to the windshield wiper low speed control circuit of the M75 Windshield Wiper Motor.

Intermittent Wiper Operation

With the S82 Windshield Wiper/Washer Switch in the intermittent position, the discrete signal circuit to the K9 Body Control Module is pulled down through a number of resistors within a resistor ladder to a low reference provided by the K9 Body Control Module. The number of resistors the signal travels through is dependent on the intermittent selection made on the S82 Windshield Wiper/Washer Switch. The K9 Body Control Module interprets this range of voltage pull-down as a request for intermittent wiper activation, with each pull-down voltage value equating an intermittent delay (sensitivity) level. If the rain sense is enabled the K9 Body Control Module communicates with the B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor via LIN. The B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor utilizes windshield optics to determine the amount of water on the windshield and will communicate this info to the K9 Body Control Module, which will vary wiping cadence based on the intermittent sensitivity selection on the S82 Windshield Wiper/Washer Switch and the amount of water on the windshield. If the rain sense is disabled the K9 Body Control will vary the wiping cadence based on a preset amount of time determined by the intermittent delay selection on the S82 Windshield Wiper/Washer Switch. To initiate wiper operation, the K219 Lighting Control Module energizes the KR12B Windshield Wiper Relay. This allows battery voltage from the wiper fuse to be applied through the switched contacts of the KR12B Windshield Wiper Relay, through the normally closed contacts of the KR12C Windshield Wiper Speed Control Relay, to the low speed control circuit of the M75 Windshield Wiper Motor.

High Speed Wiper Operation

With the S82 Windshield Wiper/Washer Switch in the high speed position, the discrete signal circuit to the K9 Body Control Module is pulled down through two resistors in a resistor ladder to a low reference provided by the K9 Body Control Module. The K9 Body Control Module interprets this specific voltage pull-down as a request for wiper activation. In addition to this pull-down signal, a second switch in the S82 Windshield Wiper/Washer Switch is also pulled down to low reference. This signal is a discrete input to the K219 Lighting Control Module. The K219 Lighting Control Module requests wiping operation. To initiate high speed operation, the K219 Lighting Control Module energizes the KR12B Windshield Wiper Relay and grounds the KR12C Windshield Wiper Speed Control Relay. This allows battery voltage from the wiper fuse to be applied through the switched contacts of the KR12B Windshield Wiper Relay, through the switched contacts of the KR12C Windshield Wiper Speed Control Relay, to the windshield wiper motor high speed control circuit of the M75 Windshield Wiper Motor.

Mist (Single Wipe) Operation

The mist (single wipe) position is a momentary switch position that will return the S82 Windshield Wiper/Washer Switch to the off position as soon as the switch is released. With the S82 Windshield Wiper/Washer Switch in the mist (single wipe) position, the discrete signal circuit to the K9 Body Control Module is pulled down through two resistors in a resistor ladder to a low reference provided by the K9 Body Control Module. The K9 Body Control Module interprets this specific voltage pull-down as a request for wiper activation. The K9 Body Control Module communicates with the K219 Lighting Control Module via CAN, requesting consistent low speed wiping operation as long as the S82 Windshield Wiper/Washer Switch is held in the mist (single wipe) position. If the mist (single wipe) position is only briefly selected, the K9 Body Control Module will request only a single wipe.

Wiper Park Operation

With the S82 Windshield Wiper/Washer Switch in the off position, the discrete signal circuit to the K9 Body Control Module is pulled down through one resistor in a resistor ladder to a low reference provided by the K9 Body Control Module. The K9 Body Control Module interprets this specific voltage pull-down as a request to stop wiper activation. The K9 Body Control Module communicates with the K219 Lighting Control Module via CAN, requesting wiper operation stop. At this time, the K219 Lighting Control Module will deactivate the KR12B Windshield Wiper Relay and KR12C Windshield Wiper Speed Control Relay. The relay contacts will switch back to their normally closed position and will apply ground to the wiper motor power inputs through the normally closed contacts of the wiper relays. This deactivates and dynamically brakes the wiper motor in the park position. When the wiper switch is turned to the OFF position while the wiper motor is somewhere in mid-cycle, the K219 Lighting Control Module will continue to operate the motor until the wipers reach the park position. If the ignition is turned OFF while the wipers are in mid-cycle, the wipers will stop immediately, regardless of position. The K219 Lighting Control Module will park the wipers next time the ignition is turned ON.

The windshield wiper system consists of the following electrical components:

- S82 Windshield Wiper/Washer Switch
- K9 Body Control Module
- K219 Lighting Control Module
- KR12B Windshield Wiper Relay
- KR12C Windshield Wiper Speed Control Relay
- B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor
- M75 Windshield Wiper Motor

Windshield Wiper Components

S82 Windshield Wiper/Washer Switch

The S82 Windshield Wiper/Washer Switch is the primary input to the K9 Body Control Module for the driver to control windshield wiper operation. The S82 Windshield Wiper/Washer Switch also provides discrete input to the K219 Lighting Control Module during high speed wiper operation.

The S82 Windshield Wiper/Washer Switch contains three individual internal switch. One switch changes between mist (single wipe), off, intermittent, low speed, and high speed selection. The second switch changes with differing intermittent sensitivity selection. The third switch is only active when high speed wiper operation is selected. A resistor ladder is also used to determine switch selection and intermittent sensitivity selection. The high speed switch does not utilize the resistor ladder.

The K9 Body Control Module provides the S82 Windshield Wiper/Washer Switch with ground through a single low reference circuit and monitors the switch position through a single signal circuit. Voltage is applied by the K9 Body Control Module to this signal circuit and voltage drop is monitored to determine switch selection. This voltage drop will vary depending on the number of resistors in the resistor ladder, which changes depending on switch position. In the off position, current flows through a single resistor. In the mist (single wipe), low speed, and high speed position, current flows through two resistors. In the intermittent position, current flows through three or more resistors, depending on the intermittent sensitivity selected.

The S82 Windshield Wiper/Washer Switch provides a discrete switch input to the K219 Lighting Control Module during high speed wiper operation. Voltage is applied by the K219 Lighting Control Module to this signal circuit and voltage drop is monitored to determine switch selection. When high speed operation is selected, the signal circuit is pulled to ground (low reference).

K9 Body Control Module

The K9 Body Control Module will send a CAN message to the K219 Lighting Control Module to request wiper operation. The K9 Body Control Module responds to input requests from the S82 Windshield Wiper/Washer Switch. The K9 Body Control Module provides a constant ground for the S82 Windshield Wiper/Washer Switch and monitors a signal circuit to determine the requested windshield wiper position.

The K9 Body Control Module communicates with the B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor via LIN. Messages are received from the B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor to indicate the amount of water on the windshield.

K219 Lighting Control Module

The K219 Lighting Control Module controls the wiper motor via two PCB relays (KR12B Windshield Wiper Relay and KR12C Windshield Wiper Speed Control Relay). The K219 Lighting Control Module receives a message from K9 Body Control Module over CAN to determine what type of wiper operation is requested.

KR12B Windshield Wiper Relay

The KR12B Windshield Wiper Relay supplies B+ to the M75 Windshield Wiper Motor and is controlled by the K219 Lighting Control Module. The coil side of the relay receives a constant chassis ground and the switch side receives a constant B+. When wiper operation is requested, the K219 Lighting Control Module will provide voltage to the coil side of the relay. This will energize the relay, closing the high current contact, and supply B+ to the M75 Windshield Wiper Motor through the KR12C Windshield Wiper Speed Control Relay, enabling wiper operation.

KR12C Windshield Wiper Speed Control Relay

The KR12C Windshield Wiper Speed Control Relay controls B+ to the M75 Windshield Wiper Motor and is controlled by the K219 Lighting Control Module. The coil side of the relay receives a ground controlled by the K219 Lighting Control Module. The switch side of the relay receives B+ through the KR12B Windshield Wiper Relay. When high speed wiper operation is requested, the K219 Lighting Control Module will provide ground to the coil side of the relay. This will energize the relay, closing the high current contact, and supply the B+ to the M75 Windshield Wiper Motor high speed control, enabling high speed wiper operation.

B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor

Note: Due to the sensitivity of the sensor, the wipers may swipe once upon start up or rapid lighting changes.

The B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor utilizes an internal infrared LED and an optic sensor to determine the amount of water on the windshield. The infrared LED bounces infrared light against the inside of the windshield. The optic sensor measures the amount of light returned after bouncing off the windshield. With a dry windshield, all light bounced off the windshield is returned to the optic sensor. As water accumulates on the windshield, the light input to the optic sensor is diffused and reduced. The amount of light reduction corresponds directly to the amount of water on the windshield. The B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor interprets the amount of light returned and communicates this info to the K9 Body Control Module, which will control intermittent wiper operation based on the sensitivity selection of the S82 Windshield Wiper/Washer Switch and the amount of water on the windshield.

M75 Windshield Wiper Motor

The M75 Windshield Wiper Motor receives a constant chassis ground. B+ is controlled by the KR12B Windshield Wiper Relay and KR12C Windshield Wiper Speed Control Relay being operated by the K219 Lighting Control Module.

The M75 Windshield Wiper Motor includes a DC motor and an internal position switch to indicate the wiper park position. When wiper operation is requested, the DC motor spins. The spinning motor is directed to a wiping motion through the windshield wiper transmission. When wiper operation is no longer required, the M75 Windshield Wiper Motor will continue spinning until the internal position switch indicates it is in the park position.

Windshield Washer Operation

The windshield washer system allows the driver to clean the vehicle’s windshield using a discrete switch. The washer system uses the S82 Windshield Wiper/Washer Switch as the primary means of driver control. The S82 Windshield Wiper/Washer Switch is a discrete input to the K9 Body Control Module. The K9 Body Control Module communicates with the K219 Lighting Control Module over CAN to control G24 Windshield Washer Pump activation. The K9 Body Control Module also communicates with the K219 Lighting Control Module to control B+ to the M75 Windshield Wiper Motor during operation.

The windshield wiper system consists of the following electrical components:

- S82 Windshield Wiper/Washer Switch
- K9 Body Control Module
- K219 Lighting Control Module
- KR12B Windshield Wiper Relay
- KR11 Windshield Washer Pump Relay
- G24 Windshield Washer Pump
- M75 Windshield Wiper Motor
- B118B Windshield Washer Fluid Level Switch

Windshield Washer Components

S82 Windshield Wiper/Washer Switch

The S82 Windshield Wiper/Washer Switch is the primary input to the K9 Body Control Module for the driver to control windshield washer operation.

The K9 Body Control Module provides the S82 Windshield Wiper/Washer Switch with ground through a single low reference circuit and monitors the switch position through a single signal circuit. Voltage is applied by the K9 Body Control Module to this signal circuit and voltage drop is monitored to determine switch selection. The S82 Windshield Wiper/Washer Switch contains an internal switch dedicated to windshield washer operation. When the switch is closed, the signal circuit is pulled to ground, indicating washer operation is requested.

K9 Body Control Module

The K9 Body Control Module responds to input requests from the S82 Windshield Wiper/Washer Switch. The K9 Body Control Module provides a constant ground for the S82 Windshield Wiper/Washer Switch and monitors a signal circuit to determine the requested windshield wiper position.

When washer operation is requested, the K9 Body Control Module will send a CAN message to the K219 Lighting Control Module to enable the G24 Windshield Washer Pump, as well as supply B+ to the M75 Windshield Wiper Motor for low speed wiper operation.

K219 Lighting Control Module

The K219 Lighting Control Module controls B+ to the G24 Windshield Washer Pump. When washer operation is requested from a CAN message from the K9 Body Control Module, the K219 Lighting Control Module will apply voltage via a high side driver to the KR11 Windshield Washer Pump Relay. The K219 Lighting Control Module also controls B+ to the M75 Windshield Wiper Motor. When washer operation is requested, the K219 Lighting Control Module will apply voltage via a high side driver to the KR12B Windshield Wiper Relay.

The K219 Lighting Control Module also monitors the B118B Windshield Washer Fluid Level Switch through a discrete signal circuit.

KR12B Windshield Wiper Relay

The KR12B Windshield Wiper Relay supplies B+ to the M75 Windshield Wiper Motor and is controlled by the K219 Lighting Control Module. The coil side of the relay receives a constant chassis ground and the switch side receives a constant B+. When wiper operation is requested, the K219 Lighting Control Module will provide voltage to the coil side of the relay. This will energize the relay, closing the high current contact, and supply B+ to the M75 Windshield Wiper Motor through the KR12C Windshield Wiper Speed Control Relay, enabling wiper operation.

KR11 Windshield Washer Pump Relay

The KR11 Windshield Washer Pump Relay supplies B+ to the G24 Windshield Washer Pump and is controlled by the K219 Lighting Control Module. The coil side of the relay receives a constant chassis ground and the switch side receives a constant B+. When wiper operation is requested, the K219 Lighting Control Module will provide voltage to the coil side of the relay. This will energize the relay, closing the high current contact, and supply B+ to the G24 Windshield Washer Pump, enabling washer pump operation.

G24 Windshield Washer Pump

The G24 Windshield Washer Pump receives a constant chassis ground. B+ is controlled by the KR11 Windshield Washer Pump Relay. With voltage applied, a DC motor spins, connecting and pressurizing washer fluid from the washer fluid reservoir. The pressurized washer fluid is deposited on the windshield through a series of lines and nozzles.

M75 Windshield Wiper Motor

The M75 Windshield Wiper Motor receives a constant chassis ground. B+ is controlled by the KR12B Windshield Wiper Relay and KR12C Windshield Wiper Speed Control Relay being operated by the K219 Lighting Control Module. The M75 Windshield Wiper Motor will wiper at low speed when washer operation is requested.

The M75 Windshield Wiper Motor includes a DC motor and an internal position switch to indicate the wiper park position. When wiper operation is requested, the DC motor spins. The spinning motor is directed to a wiping motion through the windshield wiper transmission. When wiper operation is no longer required, the M75 Windshield Wiper Motor will continue spinning until the internal position switch indicates it is in the park position.

B118B Windshield Washer Fluid Level Switch

The B118B Windshield Washer Fluid Level Switch receives a constant chassis ground. A signal circuit is monitored by the K219 Lighting Control Module. The K219 Lighting Control Module applies voltage to the signal circuit. When the B118B Windshield Washer Fluid Level Switch is closed, voltage on the signal circuit is pulled to ground, indicating fluid in the washer fluid reservoir.

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Section 3

Driver Information and Entertainment

Image Display Cameras 3-3
Schematic and Routing Diagrams 3-3
Image Display Camera Schematics 3-4
Description and Operation 3-6
Rearview Camera Full Display Mirror Description and Operation 3-6
Rear Vision Camera Description and Operation 3-6
Surround Vision Camera Description and Operation (UV2/UXP & UXA) 3-6
Surround Vision Camera Description and Operation (UV2/UXP - UXA) 3-7

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Image Display Cameras

Schematic and Routing Diagrams

Image Display Camera Schematics (Rearview Driver Information Camera (UVB))

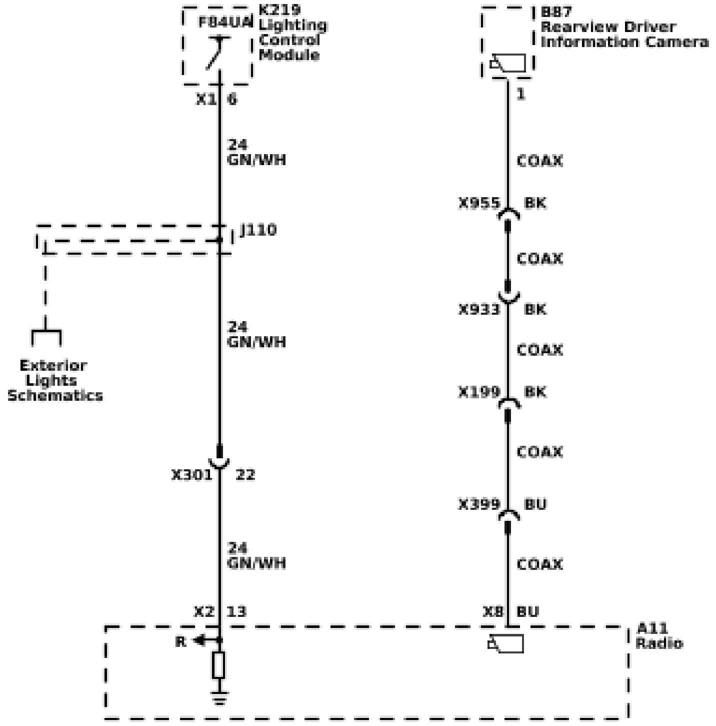
K219 Lighting Control Module
F84UA
X1 6
24 GN/WH
J110
24 GN/WH
Exterior Lights Schematics
X301 22
24 GN/WH
X2 13
R
B87 Rearview Driver Information Camera
1
COAX
X955 BK
COAX
X933 BK
COAX
X199 BK
COAX
X399 BU
COAX
X8 BU
A11 Radio

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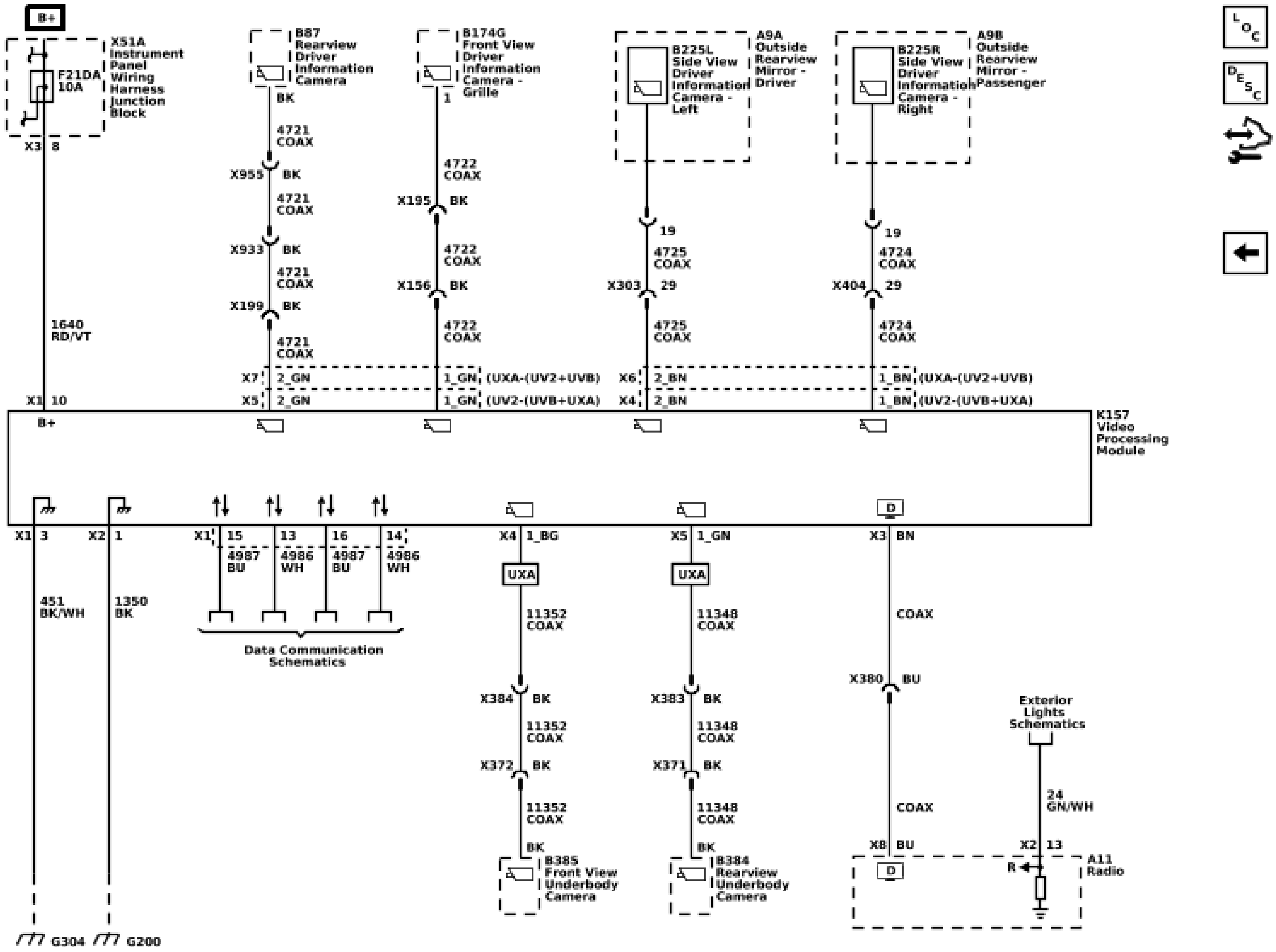
Image Display Camera Schematics (360 Degree Vision (UV2 / UXA))


B+
X51A Instrument Panel Wiring Harness Junction Block
F21DA 10A
X3 8
1640 RD/VT
X1 10
B+
B87 Rearview Driver Information Camera
BK
4721 COAX
X955 BK
X933 BK
X199 BK
X7 2_GN
X5 2_GN
B174G Front View Driver Information Camera - Grille
1
4722 COAX
X195 BK
X156 BK
1_GN (UXA-(UV2+UVB)
1_GN (UV2-(UVB+UXA)
B225L Side View Driver Information Camera - Left
A9A Outside Rearview Mirror - Driver
19
4725 COAX
X303 29
X6 2_BN
X4 2_BN
B225R Side View Driver Information Camera - Right
A9B Outside Rearview Mirror - Passenger
4724 COAX
X404 29
1_BN (UXA-(UV2+UVB)
1_BN (UV2-(UVB+UXA)
K157 Video Processing Module
X1 3
451 BK/WH
X2 1
1350 BK
G304
G200
X1 15 13 16 14
4987 BU
4986 WH
4987 BU
4986 WH
Data Communication Schematics
X4 1_BG
UXA
11352 COAX
X384 BK
X372 BK
BK
B385 Front View Underbody Camera
X5 1_GN
UXA
11348 COAX
X383 BK
X371 BK
BK
B384 Rearview Underbody Camera
X3 BN
COAX
X380 BU
D
X8 BU
Exterior Lights Schematics
24 GN/WH
X2 13
R
A11 Radio
L O C
D E S C

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Description and Operation

Rearview Camera Full Display Mirror Description and Operation

If equipped, full display mirror provides a wider field of view than normally seen from the inside rearview mirror to assist when driving and changing lanes. When the tab under the inside rearview mirror is pulled rearward, a view of the area behind the vehicle displays on the mirror. The inside rearview camera full display mirror is connected to the outside rearview camera via a shielded coaxial cable.

When the tab under the inside rearview mirror is pulled rearward, a view of the area behind the vehicle displays on the mirror.

Adjust the rearview mirror for a clear view of the area behind the vehicle before turning on full display mirror. Use the three buttons on the bottom of the mirror to adjust the brightness, zoom, and tilt of the display. Make sure the light sensor is not covered when adjusting the brightness.

The inside rearview camera full display mirror may not work properly or display a clear image if:.

- It is dark.
- The sun or the beam of headlamps are shining directly into the camera lens.
- Ice, snow, mud, or anything else builds up on the camera lens. Clean the lens, rinse it with water, and wipe it with a soft cloth.

When the mirror detects that the camera is not sending a valid video signal, it “blue screens” with a “no video” decal for 3 seconds, then reverts back to the mirror.

Rear Vision Camera Description and Operation

Rear Vision Camera System Operation

The rear vision camera system consists of a video camera located at the rear of the vehicle and the Rado.

When the transmission is placed into REVERSE, a signal is sent to the Radio indicating that camera operation is requested. The rearview camera sends video information to the radio through a coax cable. The coax cable also provides power from the Radio to the rearview camera.

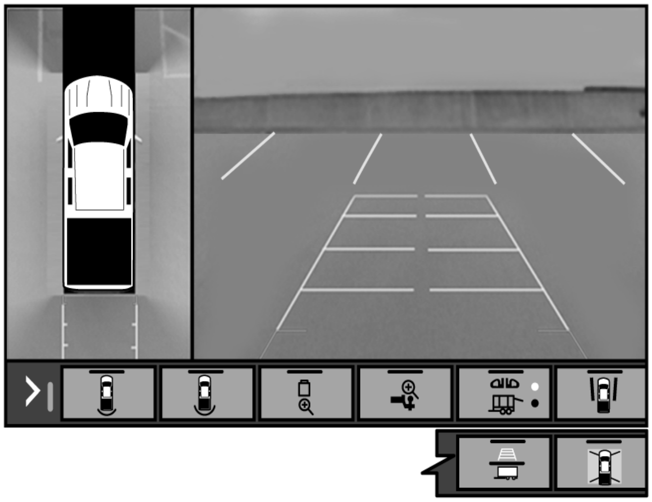
The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

If a malfunction is detected in the system, Service Rear Vision Camera may be displayed on the Info Display Module as an indicator to the customer that a problem exists that requires service.

Surround Vision Camera Description and Operation (UV2/UXP & UXA)

Warning: The Surround Vision cameras have blind spots and will not display all objects near the corners of the vehicle. Folding outside mirrors that are out of position may not display surround view correctly. Always check around the vehicle when parking or backing.



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The Surround Vision- Trailer/Underbody Vision camera system (TRG) consists of the following components:

- K157 Video Processing Control Module
- A11 Radio
- B87 Rearview Driver Information Camera
- B225L Sideview Driver Information Camera – Left
- B225R Sideview Driver Information Camera – Right
- B174G Frontview Driver InformationCamera – Grille
- Trailer Rearview Camera (if customer installed)
- Front View Underbody Camera
- Rearview Underbody Camera

Features of the Surround Vision– Trailer Vision System

- Rear camera (B87 Rearview Camera) alongside overhead view is displayed in reverse
- Trailer Rearview Camera (if customer installed) image is displayed when selected via the Trailering application on the Infotainment screen.
- Front View Underbody Camera image and Rearview Underbody Camera image are displayed when selected via the application on the Infotainment screen.
- Hitch View (when selected) displays a rear view camera image with a single guideline, which aids in aligning the truck to the trailer. If the driver shifts

into PARK while in Hitch View, the parking brake is engaged to keep the vehicle from rocking when the driver gets out of the vehicle to hitch the trailer.

- Surround Vision displays an overhead view of the area surrounding the vehicle, along with the rear camera views in the center stack. The side cameras are on the bottom of the outside rearview mirrors, the rear vision camera is above the license plate, a rearview trailer camera can be mounted on the rear of a trailer, and a trailer interior camera can be mounted on the rear of a trailer.

  Note: Images from the Sideview Cameras are only displayed when both front doors are properly closed.

System Operation

The video processing control module is connected to each camera via a shielded coaxial cable. The coaxial cable provides power for the camera and also carries the video image from the cameras to the video processing control module for processing. The video processing control module will then send the processed image output to infotainment system via another coaxial cable.

The video processing control module receives CAN information from Rear Park Assist object detection module and Steering Wheel angle from body control module during Reverse. A warning triangle may display during the surround view screen if Rear Parking Assist has detected an object during a reverse. This triangle changes from amber to red and increases in size the closer the object. Also a dynamic guideline is displayed in Reverse to show the projected path of the vehicle.

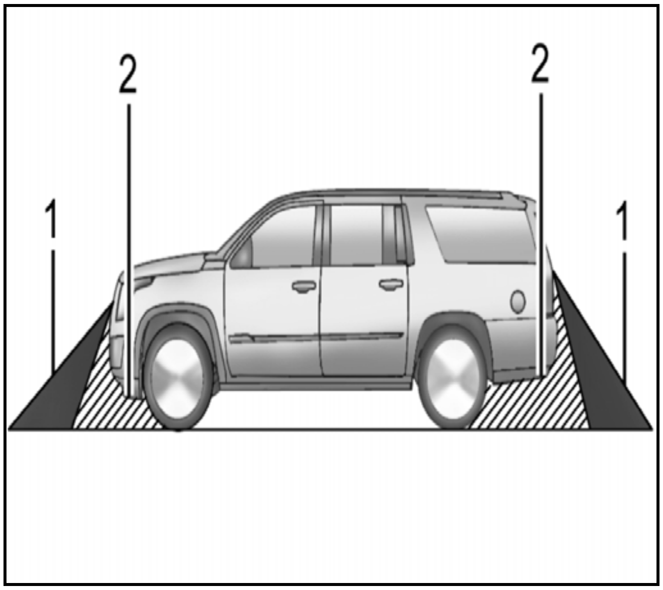
When the vehicle is traveling at speeds slower than 6 mph (10kph) the video processing control module will power up the cameras and send a video signal to the radio.

The following conditions may cause a degraded surround vision camera image:

- Ice, snow, or mud has built up on any camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Body damage to the vehicle
- Extreme high temperatures or extreme temperature changes

Surround Vision Camera Description and Operation (UV2/UXP - UXA)

Warning: The Surround Vision cameras have blind spots and will not display all objects near the corners of the vehicle. Folding outside mirrors that are out of position may not display surround view correctly. Always check around the vehicle when parking or backing.



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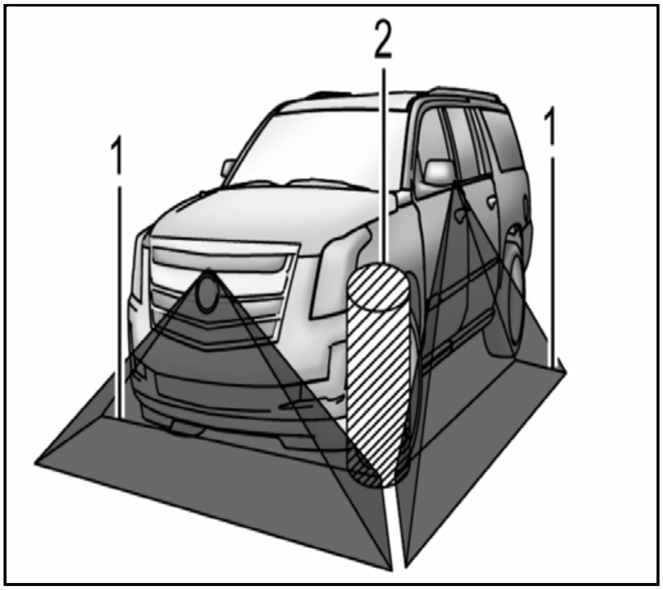
1. View Displayed by the Surround Vision Camera
2. Area Not Shown



4291749

1. View Displayed by the Surround Vision Camera
2. Area Not Shown

The surround vision camera system consists of the following components:

- B87 Rearview Camera
- B174G Frontview Camera – Grille
- K157 Video Processing Control Module
- A11 Radio **OR** K74 Human Machine Interface Module
- B225L Sideview Camera – Left
- B225R Sideview Camera – Right
- X20 Memory Card Receptacle (with XVR)

When the vehicle is traveling at speeds slower than 6 mph (10kph) the video processing control module will power up the cameras and send a video signal to the radio or human machine interface module.

The following conditions may cause a degraded surround vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

Surround Vision displays an overhead view of the area surrounding the vehicle, along with the front or rear camera views in the center stack. The front camera is in the grille or near the front emblem, the side cameras are on the bottom of the outside rearview mirrors, and the rear vision camera is above the license plate.

Note: Images from the Sideview Cameras are only displayed when both front doors are properly closed.

Features of the Surround Vision System

- Rear camera (B87 Rearview Camera) view alongside overhead view is displayed in reverse
- Front camera (B174G Frontview Camera – Grille) view alongside overhead view is displayed after shifting out of reverse to Neutral or Drive
- Will display front view when front park assist object is within trigger range calibration value (30 cm (12 in) in a forward gear
- Image is removed from display when vehicle speed exceeds speed calibration (10kph/6 mph) or button press / screen touch

System Operation

The video processing control module is connected to each camera via a shielded coaxial cable. The coaxial cable provides power for the camera and also carries the video image from the cameras to the video processing control module for processing. The video processing control module will then send the processed image output to infotainment system via another coaxial cable.

The video processing module receives various vehicle information (such as steering wheel angle, object detection, etc) from other sources such as parking assist modules and the Body Control Module via serial data. This information is used to produce the enhanced surround vision system images that include a warning triangle that may display if an object is detected nearby. This triangle changes from amber to red and increases in size as the object gets closer to the vehicle. Also, dynamic guidelines are displayed in Reverse to show the projected path of the vehicle based on steering wheel angle. Due to this use of vehicle information, any faults or DTCs in these related systems can prohibit proper surround vision operation.

If equipped, the video processing control module system may have a memory card receptacle (with XVR) located in the trunk. The memory card receptacle interfaces with the video processing control module via a USB cable. The memory card receptacle also receives fused battery voltage and ground from the video processing control module. The video processing control module uses the memory card as a mass storage device, similar to a USB storage device.

Section 4

Engine/Propulsion

Starting, Charging, and Low Voltage Energy Storage 4-3
- **Schematic and Routing Diagrams** 4-3
  - Starting and Charging Schematics 4-4
- **Description and Operation** 4-7
  - Battery Description and Operation 4-7
  - Charging System Description and Operation 4-7
  - Electrical Power Management Description and Operation 4-10
  - Starting System Description and Operation 4-12
  - Stop/Start System Description and Operation 4-13

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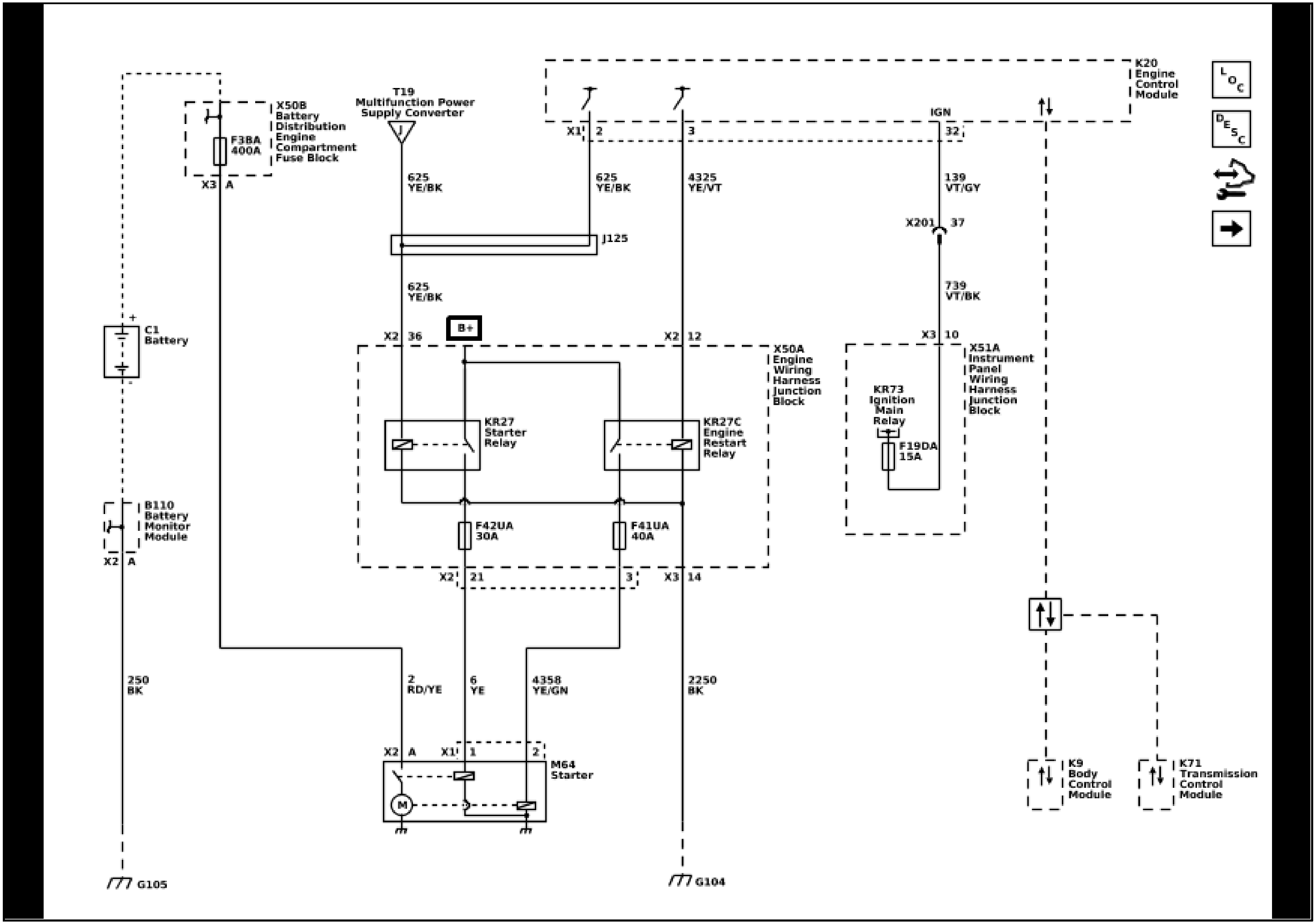
Starting, Charging, and Low Voltage Energy Storage

Schematic and Routing Diagrams

Starting and Charging Schematics (Starting)


K20
Engine
Control
Module
IGN
X1 2
3
32
X50B
Battery
Distribution
Engine
Compartment
Fuse Block
F38A
400A
X3 A
T19
Multifunction Power
Supply Converter
625
YE/BK
625
YE/BK
4325
YE/VT
139
VT/GY
X201 37
J125
625
YE/BK
739
VT/BK
C1
Battery
B+
X2 36
X2 12
X3 10
X50A
Engine
Wiring
Harness
Junction
Block
X51A
Instrument
Panel
Wiring
Harness
Junction
Block
KR73
Ignition
Main
Relay
F19DA
15A
KR27
Starter
Relay
KR27C
Engine
Restart
Relay
B110
Battery
Monitor
Module
F42UA
30A
F41UA
40A
X2 A
X2 21
3
X3 14
250
BK
2
RD/YE
6
YE
4358
YE/GN
2250
BK
X2 A
X1 1
2
M64
Starter
M
K9
Body
Control
Module
K71
Transmission
Control
Module
G105
G104

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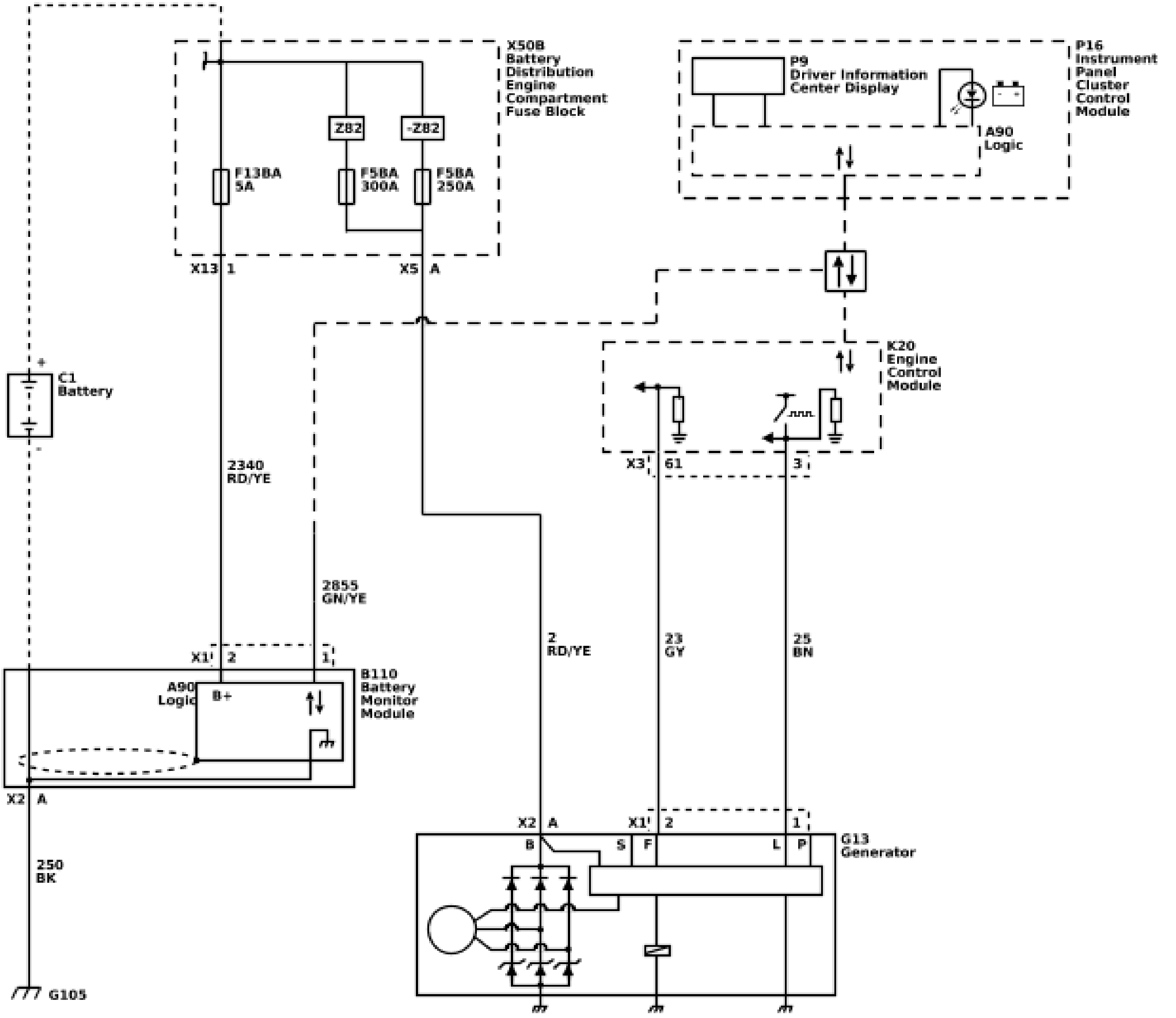
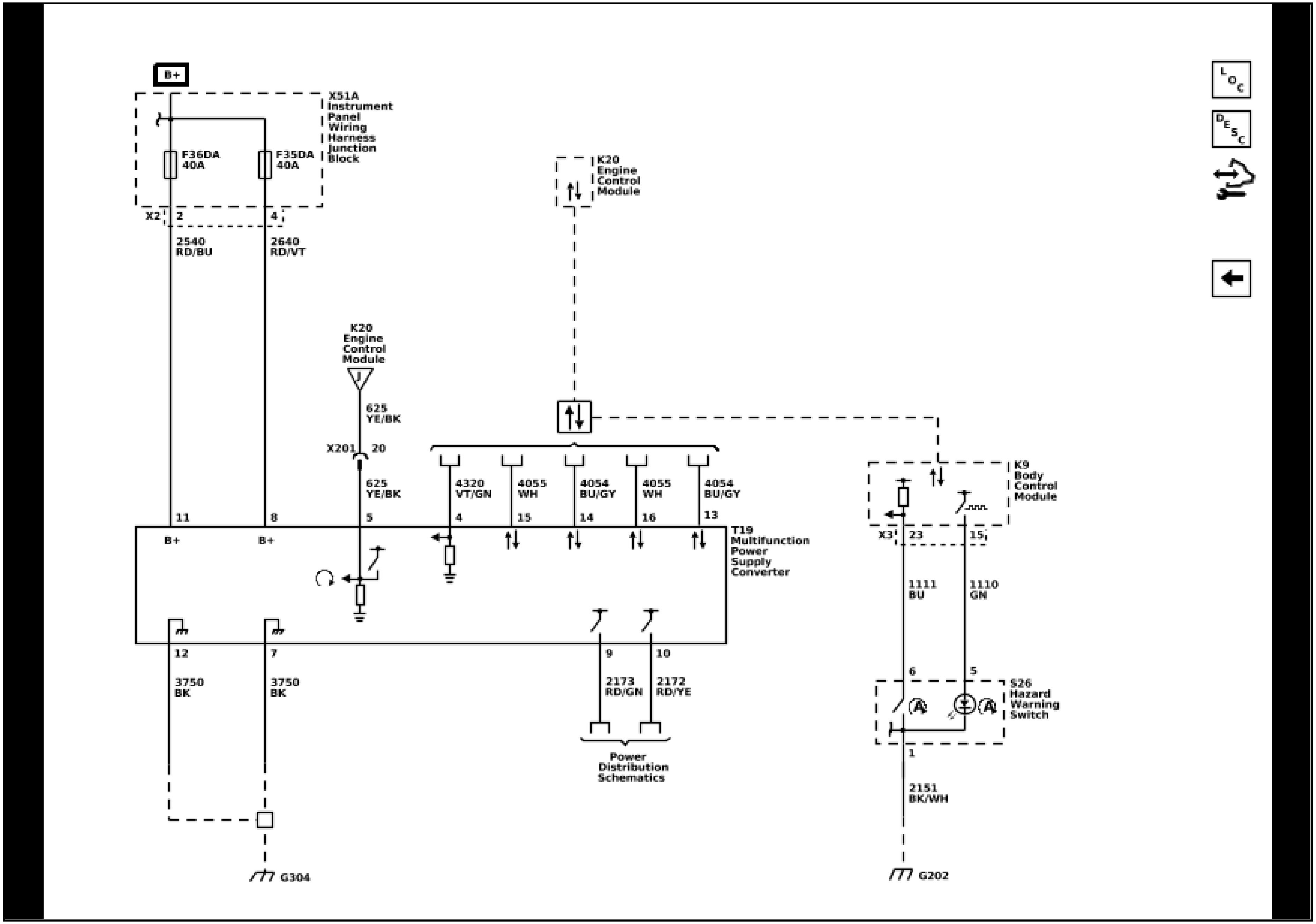
Starting and Charging Schematics (Charging)


X50B Battery Distribution Engine Compartment Fuse Block
Z82
-Z82
F138A 5A
F58A 300A
F58A 250A
X13 1
X5 A
P9 Driver Information Center Display
P16 Instrument Panel Cluster Control Module
A90 Logic
K20 Engine Control Module
X3 61
3
C1 Battery
+
-
2340 RD/YE
2855 GN/YE
2 RD/YE
23 GY
25 BN
X1 2
1
B110 Battery Monitor Module
A90 Logic
B+
X2 A
250 BK
G105
X2 A
X1 2
1
B
S
F
L
P
G13 Generator

6331758

Starting and Charging Schematics (Stop/Start System)


B+
X51A Instrument Panel Wiring Harness Junction Block
F36DA 40A
F35DA 40A
X2 2
4
2540 RD/BU
2640 RD/VT
K20 Engine Control Module
625 YE/BK
X201 20
625 YE/BK
K20 Engine Control Module
4320 VT/GN
4055 WH
4054 BU/GY
4055 WH
4054 BU/GY
11
8
5
4
15
14
16
13
B+
B+
T19 Multifunction Power Supply Converter
12
7
9
10
3750 BK
3750 BK
2173 RD/GN
2172 RD/YE
Power Distribution Schematics
G304
K9 Body Control Module
X3 23
15
1111 BU
1110 GN
6
5
S26 Hazard Warning Switch
1
2151 BK/WH
G202

6331759

Description and Operation

Battery Description and Operation

Warning: Batteries produce explosive gases, contain corrosive acid, and supply levels of electrical current high enough to cause burns. Therefore, to reduce the risk of personal injury when working near a battery:

- ***Always shield your eyes and avoid leaning over the battery whenever possible.***
- ***Do not expose the battery to open flames or sparks.***
- ***Do not allow the battery electrolyte to contact the eyes or the skin. Flush immediately and thoroughly any contacted areas with water and get medical help.***
- ***Follow each step of the jump starting procedure in order.***
- ***Treat both the booster and the discharged batteries carefully when using the jumper cables.***

Batteries that are no longer wanted must be disposed of by an approved battery recycler and must never be thrown in the trash or sent to a landfill.

Batteries that are not part of the vehicle itself, not the battery under the hood, must only be transported on public streets for business purposes via approved hazardous material transportation procedures.

Battery storage, charging and testing facilities in repair shops must meet various requirements for ventilation, safety equipment, material segregation, etc.

The maintenance free battery is standard. There are no vent plugs in the cover. The battery is completely sealed except for 2 small vent holes in the side. These vent holes allow the small amount of gas that is produced in the battery to escape.

The battery has 3 functions as a major source of energy:

- Engine cranking
- Voltage stabilizer
- Alternate source of energy with generator overload

Battery Low Start Vehicle Message

The body control module (BCM) monitors battery positive voltage to determine battery state of charge. If one or more of the BCM battery positive voltage terminals measure less than approximately 11.6V compared to the BCM ground circuits, this message will display and four chimes may sound. Start the vehicle immediately. If the vehicle is not started and the battery continues to discharge, the climate controls, heated seats, and audio systems will shut off and the vehicle may require a jump start. These systems will function again after the vehicle is started.

Battery Ratings

A battery has 2 ratings:

- Cold cranking amperage
- Amperage hours

When a battery is replaced use a battery with similar ratings. See battery specification label on the original battery.

Amperage Hours

The amperage hour rating tells you how much amperage is available when discharged evenly over a 20 hour period. The amperage hour rating is cumulative, so in order to know how many constant amperage the battery will output for 20 h, you have to divide the amperage hour rating by 20. Example: If a battery has an amperage hour rating of 74, dividing by 20 = 3.75. Such a battery can carry a 3.75 A load for 20 hours before dropping to 10.5 V. (10.5 V is the fully discharged level, at which point the battery needs to be recharged.) A battery with an amperage hour rating of 55 will carry a 2.75 A load for 20 hours before dropping to 10.5 V.

Cold Cranking Amperage

The cold cranking amperage is an indication of the ability of the battery to crank the engine at cold temperatures. The cold cranking amperage rating is the minimum amperage the battery must maintain for 30 seconds at −18°C (0°F) while maintaining at least 7.2 V. See battery label for the cold cranking amperage rating of this battery.

Charging System Description and Operation

Electrical Power Management Overview

The electrical power management system is designed to monitor and control the charging system and send diagnostic messages to alert the driver of possible problems with the battery and generator. This electrical power management system primarily utilizes existing on-board computer capability to maximize the effectiveness of the generator, to manage the load, improve battery state-of-charge and life, and minimize the system's impact on fuel economy. The electrical power management system performs 3 functions:

- Monitor the battery voltage and estimate the battery condition
- Take corrective actions by boosting idle speeds, and adjusting the regulated voltage
- Perform diagnostics and driver notification

The battery condition is estimated during ignition/vehicle off and during ignition/vehicle on. During ignition/vehicle off the state-of-charge of the battery is determined by measuring the open-circuit voltage. The state-of-charge is a function of the acid concentration and the internal resistance of the battery, and is estimated by reading the battery open circuit voltage when the battery has been at rest for several hours.

Any time the ignition/vehicle is on, the vehicle algorithm continuously estimates battery state-of-charge based on adjusted net amp hours, battery capacity, initial state-of-charge, and calculated temperature.

While the engine is running, the battery degree of discharge is primarily determined by the integrated battery current sensor, to obtain net amp hours.

In addition, the electrical power management function is designed to perform regulated voltage control to improve battery state-of-charge, battery life, and fuel economy. This is accomplished by using knowledge of the battery state-of-charge and temperature to set the charging voltage to an optimum battery voltage level for recharging without detriment to battery life.

Charging System Components

G13 Generator

The engine drive belt drives the generator. When the rotor is spun, it induces an alternating current (AC) into the stator windings. The AC voltage is then sent through a series of diodes for rectification. The rectified voltage has been converted into a direct current (DC) for use by the vehicles electrical system to maintain electrical loads and the battery charge. The voltage regulator integral to the generator controls the output of the generator; It is not serviceable. The voltage regulator controls the amount of current provided to the rotor. If the generator has field control circuit fault, the generator defaults to an output voltage of 13.8 V.

The generator is serviced as a complete assembly. If there is a diagnosed fault in the generator, it must be replaced as an assembly.

Generator Pulley

The pulley drives the Generator via the engine drive belt. There are 2 types of pulleys:

1. Conventional solid Pulley which is bolted to the Generator stator shaft. This Pulley can be serviced separately.

2. One Way Clutch Pulley or Overrunning Alternator Decoupler Pulley allows the Generator to spin freely when the engine rapidly slows down on sudden deceleration. This part is not serviceable and the Generator needs to be replaced as an assembly.

K9 Body Control Module (BCM)

The K9 Body Control Module communicates with the K20 Engine Control Module and the instrument cluster for electrical power management operation. The BCM determines the output of the generator and sends the information to the ECM for control of the generator turn on signal circuit. It monitors the generator field duty cycle signal circuit information sent from the ECM for control of the generator. It monitors the battery current sensor, the battery positive voltage circuit, and estimates battery temperature to determine battery state of charge. The BCM also performs idle boost.

B110 Battery Monitor Module

The Battery Monitor Module communicates to the BCM via LIN. The BCM shares this information with the ECM. The purpose of the battery sensor module is to transmit battery information that the BCM/ECM can use to make decisions regarding stop/start, battery saver mode, and load shedding.

K20 Engine Control Module (ECM)

When the engine is running, the generator turn-on signal is sent to the generator from the ECM, turning on the regulator. The generator's voltage regulator controls current to the rotor, thereby controlling the output voltage. The rotor current is proportional to the electrical pulse width supplied by the regulator. When the engine is started, the regulator senses generator rotation by detecting AC voltage at the stator through an internal wire. Once the engine is running, the regulator varies the field current by controlling the pulse width. This regulates the generator output voltage for proper battery charging and electrical system operation. The generator field duty terminal is connected internally to the voltage regulator and externally to the ECM. When the voltage regulator detects a charging system problem, it grounds this circuit to signal the ECM that a problem exists. The ECM monitors the generator field duty cycle signal circuit, and receives control decisions based on information from the BCM.

P16 Instrument Cluster

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

The instrument cluster also provides customer notification if there is a concern with the charging system. There are two means of notification: a charge indicator on the instrument cluster and/or a service system message displayed on the Driver Information Center (DIC) if equipped.

Charging System Operation

The purpose of the charging system is to maintain the battery charge and vehicle loads. There are 6 modes of operation and they include:

- Battery Sulfation Mode
- Charge Mode
- Fuel Economy Mode
- Head lamp Mode
- Start Up Mode
- Voltage Reduction Mode

The ECM Controls the Generator through the generator turn–on signal circuit, also known as the Generator L-terminal. The ECM monitors the generator performance though the Generator field duty cycle signal circuit, also known as the generator F-terminal.

The Generator turn–on signal (Generator L-terminal) is a Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. 0–5% and 95–100% are for diagnostic purposes, with 0–5% monitoring for an open circuit and 95–100% monitoring for a short to ground at a fixed 13.8 V. The following table shows the commanded duty cycle and output voltage of the Generator:

Commanded Duty Cycle	Generator Output Voltage (+/- .25 V)
0–5%	13.8 V
10%	11 V
20%	11.56 V
30%	12.13 V
40%	12.69 V
50%	13.25 V
60%	13.81 V

Commanded Duty Cycle	Generator Output Voltage (+/- .25 V)
70%	14.38 V
80%	14.94 V
90%	15.5 V
95–100%	13.8 V

The Generator provides a PWM feedback signal of the Generator voltage output through the Generator field duty cycle signal circuit to the ECM. This information is sent to the Body Control Module (BCM). The Generator field duty cycle signal (Generator F-terminal) is a PWM signal of 60–460 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–100%. 0–5% is reserved for diagnostic purposes.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage displayed in the DIC to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Charging System Modes

Battery Sulfation Mode

The BCM will enter this mode when the interpreted Generator output voltage is less than 13.2 V for 45 minutes. When this condition exists the BCM will enter Charge Mode for 2–3 minutes. The BCM will then determine which mode to enter depending on voltage requirements.

Charge Mode

The BCM will enter Charge Mode when ever one of the following conditions are met:

- Windshield wipers are ON for more than 3 s.
- Climate Control Voltage Boost Mode Request is true, as sensed by the HVAC control module via serial data. High speed cooling fan, rear defogger, and HVAC high speed blower operation can cause the BCM to enter the Charge Mode.
- The estimated battery temperature is less than 0° C (32°F).
- Battery State of Charge is less than 80%.
- Vehicle speed is greater than 145 km/h (90 mph)
- A current sensor malfunction exists.
- System voltage is determined to be below 12.56 V

When any one of these conditions is met, the system will set targeted generator output voltage to a charging voltage between 13.9–15.5 V, depending on the battery state of charge and estimated battery temperature.

Fuel Economy Mode

The BCM will enter Fuel Economy Mode when the estimated battery temperature is at least 0°C (32°F) but less than or equal to 80°C (176°F), the calculated battery current is less than 15 A and greater than −8 A, and the battery state-of-charge is greater than or equal to 80%. Its targeted generator output voltage is the open circuit voltage of the battery and can be between 12.5–13.1 V. When fuel economy mode is active, the generator is not charging, only maintaining open circuit battery voltage. The BCM will exit this mode and enter Charge Mode when any of the conditions described above are present.

Headlamp Mode

The BCM will enter Headlamp Mode when ever the head lamps are ON (high or low beams). Voltage will be regulated between 13.9–14.5 V.

Start Up Mode

When the engine is started the BCM sets a targeted generator output voltage of 14.5 V for 30 s.

Tow/Haul Mode (if applicable)

Pressing the Tow/Haul Mode button located on the center stack, the vehicle system voltage is raised and the remote (non-vehicle) battery will be charged. Having the headlamps on will raise the system voltage and if the Tow/Haul button is applied it will not serve any purpose. The voltage is regulated between 13.9-14.5 V.

Instrument Cluster Operation

Charge Indicator Operation

The instrument cluster illuminates the charge indicator and displays a warning message in the driver information center if equipped, when the one or more of the following occurs:

- The ECM detects that the generator output is less than 11 V or greater than 16 V. The instrument cluster receives a serial data message from the ECM requesting illumination.
- The instrument cluster determines that the system voltage is less than 11 V or greater than 16 V for more than 30 s. The instrument cluster receives a serial data message from the BCM indicating there is a system voltage range concern.
- The instrument cluster performs the displays test at the start of each ignition cycle. The indicator illuminates for approximately 3 s.

Driver Information Center Message: BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM

The BCM and the ECM will send a serial data message to the driver information center for the BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM message to be displayed. It is displayed when a charging system DTC is a current DTC. The message is turned off when the conditions for clearing the DTC have been met.

Voltmeter Gauge and/or System Voltage Display (if equipped)

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage display in the driver information center to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Electrical Power Management Description and Operation

Electrical Power Management

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition.

Each electrical power management function, either idle boost or load shed, is activated in incremental steps. For example, idle boost 1 must be active before idle boost 2 can be active. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Idle Boost and Load Shed With Current Sensor

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 Ah	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 11 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −10°C (14°F)	Greater Than 12 V	Battery has a net loss less than 0.2 Ah	First level Idle boost request cancelled
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 Ah	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 11 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 Ah	Second level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 Ah	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 11 V	—	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 Ah	Clear Load Shed 1
Idle Boost 3 Start	—	—	Battery has a net loss of 10 Ah	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 11 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 Ah	Third level Idle boost request cancelled

Idle Boost and Load Shed With Current Sensor (cont'd)

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Load Shed 2 Start	—	—	Battery has a net loss greater than 12 Ah	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 11 V	—	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12 V	Battery has a net loss of less than 8 Ah	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 Ah	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 Start	—	Less Than 11 V	—	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 13 Ah	Clear Load Shed 3

Idle Boost and Load Shed Without Current Sensor (based on battery voltage)

Function	Battery Temperature Calculation	Battery Voltage Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 12.6 V	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	—	First level Idle boost request cancelled
Idle Boost 1 End	—	Greater Than 13 V	First level Idle boost request cancelled
Idle Boost 2 Start	—	Less Than 12.4 V	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12.5 V	Second level Idle boost request cancelled
Load Shed 1 Start	—	Less Than 12.3 V	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12.4 V	Clear Load Shed 1
Idle Boost 3 Start	—	Less Than 10 V	Third level Idle boost requested

Idle Boost and Load Shed Without Current Sensor (based on battery voltage) (cont'd)

Function	Battery Temperature Calculation	Battery Voltage Calculation	Action Taken
Idle Boost 3 End	—	Greater Than 12.3 V	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 12.1 V	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.2 V	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Rear Defrost, Heated Mirrors, Heated Seats, HVAC cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.0 V	Clear Load Shed 3

Starting System Description and Operation

Starter Motor Operation (Without KL9)

The starter motors are non-repairable. They have pole pieces that are arranged around the armature. Both solenoid windings are energized. The pull-in winding circuit is completed to the ground through the starter motor. The windings work together magnetically to pull and hold in the plunger. The plunger moves the shift lever. This action causes the starter drive assembly to rotate on the armature shaft spline as it engages with the flywheel ring gear on the engine. Moving at the same time, the plunger also closes the solenoid switch contacts in the starter solenoid. Full battery voltage is applied directly to the starter motor and it cranks the engine.

As soon as the solenoid switch contacts close, current stops flowing thorough the pull-in winding because battery voltage is applied to both ends of the windings. The hold-in winding remains energized. Its magnetic field is strong enough to hold the plunger, shift lever, starter drive assembly, and solenoid switch contacts in place to continue cranking the engine. When the engine starts, pinion overrun protects the armature from excessive speed until the switch is opened.

When the crank signal is removed, the starter relay opens and battery voltage is removed from the starter solenoid S terminal. Current flows from the motor contacts through both windings to the ground at the end of the hold-in winding. However, the direction of the current flow through the pull-in winding is now opposite the direction of the current flow when the winding was first energized.

The magnetic fields of the pull-in and hold-in windings now oppose one another. This action of the windings, along with the help of the return spring, causes the starter drive assembly to disengage and the solenoid switch contacts to open simultaneously. As soon as the contacts open, the starter circuit is turned off.

Enhanced Starter Motor Operation (KL9)

The Engine Stop/Start system in GM vehicles automatically turns off the engine when the vehicle comes to a stop under certain driving conditions, and can quickly restart the engine in about 0.3 seconds when commanded to do so.

In order to smoothly restart the engine as quickly as possible while managing the greater number of engine starts, the Stop/Start system uses an enhanced starter motor that operates differently from a conventional starter motor. It has a high performance electric motor and a stronger pinion engagement mechanism than a conventional starter. It also has independent control of the pinion and motor.

The enhanced starter motor continues using the typical pinion engagement mechanism with a starter solenoid that drives the pinion gear to engage or disengage the flywheel of the engine. When engaged, the starter motor can rotate the engine flywheel and, in turn, the crankshaft.

On the enhanced starter of a Stop/Start system the operation is done in two separate functions inside the solenoid, Starter Motor and Pinion Actuator. Each function controlled individually by the ECM. There are two separate relays to control the two separate parts of the enhanced solenoid:

- KR27 Starter Motor Relay
- KR27C Starter Pinion Actuator Relay

The two individually-controlled relays allow for smooth engagement of the pinion gear into the flywheel with minimum noise and wear.

When the vehicle is coming to a stop, just before the engine stops rotating (at approximately 50 RPM) during stop/start operation, the ECM energizes the Starter Pinion Solenoid Actuator Relay to easily push the pinion gear into the flywheel gear without gear clash. (Fig. 8) When the engine stops rotating during Stop/Start operation (Auto Stop mode), the starter pinion gear is fully engaged, ready for the starter motor to become energized to quickly start the engine again.

A secondary need for the starter pinion to be driven into the flywheel gear before the engine stops rotating is to address quickly changing demands on the engine. For example, when a driver is slowing nearly to a stop — and the Stop/Start system is preparing for Auto Stop mode — but suddenly decides to release the brake and accelerate

In this situation, the engine has already stopped rotating, or nearly so. A conventional starter cannot restart the engine until the engine has completely stopped. However, with the enhanced starter, the starter pinion gear is fully engaged and ready to begin rotating the engine even before it fully stops turning. Otherwise, the engine would actually have to stop rotating before the pinion can engage smoothly to begin a restart.

To prevent a lag in engine operation, the ECM uses predictive speed matching of the flywheel gear speed and the pinion gear speed to engage the pinion gear into the flywheel gear without gear clash before the engine fully stops. By predicting how long it takes the starter motor to spin up using an algorithm, the pinion gear speed can be matched to the flywheel gear speed. The result is an almost instant restart that is possible at extremely low engine speeds.

Circuit Description

Keyless Start

When the Ignition mode switch is placed in the crank position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the crank position. The BCM then sends a serial data message to the engine control module (ECM) that crank has been requested. The ECM then verifies that the brake pedal is applied and for manual transmission the clutch is fully depressed or for automatic transmission is in Park/Neutral. If it is, the ECM then supplies 12 V to the control circuit of the starter relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Key Start

When the ignition switch is placed in the Start position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the Start position. The BCM then sends a message to the engine control module (ECM) notifying it that CRANK has been requested. The ECM verifies that the transmission is in Park or Neutral. If it is, the ECM then supplies 12 V to the control circuit of the crank relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Stop/Start System Description and Operation

The Stop/Start System is used to improve fuel efficiency in stop/start driving. The vehicle automatically shuts down the engine in appropriate conditions at a traffic light, for example, resulting in zero tail pipe emissions and saving fuel which otherwise is used idling the engine when stationary. The engine instantly restarts when the driver is ready to move away.

As soon as the driver prepares to move away (by releasing the brake pedal and/or depressing the accelerator pedal), the engine will start; it only takes the system around 0.3 s to start the engine.

To support the increased number of engine starts, the starter motor is upgraded with a high performance electric motor and a stronger pinion engagement mechanism with reduced noise levels.

Along with the upgraded starter motor, advanced battery technology is required to ensure the vehicles battery can handle the frequent charge and discharge cycles common with stop/start operation. There is battery sensor module connected to the battery which continually monitors the battery charge and healthy state. The Engine Control Module (ECM) uses this information from the battery sensor module to determine if the battery charge and health is sufficient for an Stop/Start condition.

The Stop/Start system can reduce fuel consumption and carbon dioxide ($CO2$) emissions by up to 5% in mixed driving conditions. In an urban environment and in heavy traffic with frequent stops the savings may increase to as much as 10%.

There are also sophisticated controls in place to help ensure the Stop/Start System does not compromise the needs of either the driver or vehicle. For the engine to shutdown, the vehicle must be below 5 km/h (3 MPH), the selector lever in position D, and brake pedal depressed. To restart, the driver simply releases the brake pedal and the enhanced starter motor engages the engine. When the engine has been shut down by the Stop/Start System, a control indicator will be illuminated in the Driver Information Center (DIC). When the engine is restarted, the control indicator in the DIC extinguishes.

To ensure neither the needs of the driver or vehicle are compromised the engine will not shut down in the following circumstances:

- Ambient and coolant temperature correlation does not match specified values.
- Ambient temperature is less than −10°C (14°F)
- Battery temperature is less than 0°C (32°F) or greater than 55°C (131°F)
- Driver seat belt is not fastened and the drivers door is not fully closed (not applicable to vehicles in North America)
- HVAC system demand is high
- HVAC defrost has been selected
- Battery charge is low

Likewise the engine will automatically restart if:

- Driver door opened and driver seat belt unbuckled (not applicable to vehicles in North America)
- Engine hood opened
- Battery charge is low
- HVAC demand increases
- Vehicle speed increases
- Brake booster vacuum has been reduced
- Engine coolant temperature is greater than 125° C (257°F)
- Economy mode turned OFF by driver
- Autostop time exceeded 2 min

When the Stop/Start System has shut down the engine, and the ambient temperature is below 15°C (59°F), the ECM will activate the Stop/Start auxiliary relay which controls the electric engine coolant pump motor to continually circulate the engine coolant through the engine while the engine is off. This is to ensure the engine and passenger compartment temperature is maintained while off. Once the Stop/Start System has restarted the engine, the ECM will turn off the electric coolant pump motor, thus allowing the engines internal coolant pump to circulate the engine coolant. The Stop/Start System is automatically activated each time the ignition switch is turned on.

Through the climate control system, the vehicle can be cycled between off, comfort, and eco air conditioning modes (if equipped). In comfort mode, the priority for Stop/Start operation is on customer comfort. Depending on ambient temp, humidity, cabin temperature and cabin temperature setpoint, the least amount of autostops occur in this mode. In eco mode, the priority is on fuel economy. There are more frequent autostops with some sacrificing of cabin temperature control. With the HVAC turned off, the maximum autostops occur since there will be no A/C compressor requests.

Autostop Criteria

The ECM will send an Autostop state message to the body control module (BCM) and shut down the engine when all of the following criteria is met. The BCM will transmit the Autostop state message to the instrument cluster which will display the Autostop indicator in the tachometer display.

- Initial minimum vehicle speed during drive cycle must be 19 km/h (12 MPH) or greater. Subsequent autostop minimum speed may vary from 2-10 km/h (1-6 MPH), depending on vehicle
- Ambient and engine coolant temperature correlation meets specified values.
- Ambient and transmission fluid temperature correlation meets specified values.
- Hood switch status is closed
- Driver door status is closed
- Driver seat belt status is buckled
- Brake booster vacuum is greater than 45 kPa (7 PSI)
- Transmission gear selector is in the Drive position
- Vehicle speed is less than 5 km/h (3 MPH)
- Engine speed is below 1,500 RPM
- Engine coolant temperature is less than 120° C (248°F)
- Ambient temperature is greater than −10°C (14°F)
- No A/C compressor request from HVAC (A/C or Defrost modes)
- Battery voltage greater than 12 V
- Battery state of charge greater than 75% (changes with state of health)

Autostop Enable Ambient and Engine Coolant Temperature Table

Ambient Temperature	inimum Coolant Temperature	Autostop Enable
−10°C (14°F)	60°C (140°F)	Yes
0°C (32°F)	50°C (122°F)	Yes
6°C (43°F)	40°C (104°F)	Yes
12°C (54°F)	30°C (86°F)	Yes
20°C (68°F)	18°C (64°F)	Yes
30°C (86°F)	18°C (64°F)	Yes

Autostart Criteria

The ECM will send an Autostart state message to the BCM. If all of the following conditions are true the ECM and BCM will restart the vehicle.

Driver Enabled Conditions that will engage Autostart:

- Driver removes pressure from the brake or depresses the accelerator pedal while the vehicle is in the forward Drive gear

System Enabled Conditions that will engage Autostart

Note: If one or more of the following conditions occur, the system will force the engine to restart.

- Brake booster vacuum is less than 40 kPa (6 PSI)
- A/C compressor request from HVAC (A/C or Defrost modes)
- Battery voltage less than 11 V,
- Battery state of charge is less than 73% (changes with state of health)
- Driver door status changes to open and driver seat belt status changes to unbuckled (not applicable to vehicles in North America)
- Hood switch status changes to open
- Autostop time exceeded 2 min

If the crank time exceeds 2 s, a manual ignition switch restart will be necessary.

System Components

Engine Control Module (ECM)

The ECM monitors the inputs from the Engine Coolant Temperature (ECT) sensor, Vehicle Speed Sensor (VSS), Battery Sensor Module, hood ajar switch, brake booster vacuum sensor, and engine speed to determine Autostart and Autostop conditions. The ECM also controls the auxiliary coolant pump motor (if equipped).

Transmission Control Module (TCM)

The TCM monitors the inputs from the transmission neutral safety switch to determine the driver selected gear. This information is transmitted to the ECM via serial data to support the Auto Stop Start algorithm.

Engine Coolant Temperature sensor (ECT)

The ECT sensor is used to determine engine operating temperature.

Intake Air Temperature Sensor (IAT)

The ECM uses this sensor to monitor ambient air temperature. If too cold, the Autostop will not occur.

Inside air temperature sensor

The HVAC control module monitors the passenger compartment temperature sensor to determine the temperature inside the passenger compartment. The HVAC control module sends this temperature reading to the ECM on the data communication circuit. The ECM uses this temperature values to determine if a restart is requires based on the temperature inside the passenger compartment.

Vehicle speed sensor

The vehicle speed sensor is used to determine vehicle speed. If vehicle speed is detected above a calculated value during an Autostop condition, the ECM will start the engine.

Hood Ajar Switch

If the hood switch is in the open position, the vehicle will not Autostop. If the hood is opened during Autostop, the vehicle will automatically restart.

Brake Booster Vacuum Sensor

The ECM monitors vacuum in order to ensure proper power assist for the brake pedal. If the ECM determines vacuum is too low, it will restart the engine.

Brake Pedal Position Sensor (BPPS) & Accelerator Pedal Position Sensor (APP)

The ECM monitors both the brake pedal position sensor and the accelerator pedal position sensor to determine the level of activation for each. While the accelerator pedal is in it’s at rest position with no pressure applied by the operator, a partially depressed Brake pedal will cause the ECM to prepare the engine for an Autostop event. When the vehicle is in an auto stop event and the status of the brake pedal position sensor changes from meeting the autostop criteria to not meeting this criteria the engine will be restarted provided all of the other conditions to allow an autostart are met. If the Accelerator pedal is moved from its at rest position the vehicle will also enter an auto start event if all other conditions to support an autostart event, except for the brake pedal position, are met.

Transmission Gear Shift Position Switch

The transmission gear shift position switch is used to determine if the transmission is in the proper state to allow an auto stop/start event. The ECM will not allow Autostop until the brake is engaged, the transmission is in the forward gear position and then the vehicle slows to below the minimum speed required to allow and autostop while meeting all of the other minimum criteria to support an autostop event.

Coolant Pump Motor

The ECM will turn on the auxiliary coolant pump motor during Autostop to maintain engine operating temperature and HVAC temperature. Once the engine is running, the ECM will turn off the coolant pump motor.

Body Control Module (BCM)

The Body Control Module (BCM) monitors the Autostop Disable switch in order to enable or disable the system. It sends the appropriate messages to the ECM Via serial data to enable or disable the system.

Battery Sensor Module

The Battery Sensor Module monitors the battery current load, state of health, and state of charge, the information is sent to the BCM Via LIN then to the ECM Via Serial Data. If the module detects high current load, the battery is in a poor state of health or a low charge condition, the ECM will not allow Autostop to occur.

Autostop Disable Switch

The disable switch is an input to the BCM, it allows the customer to disable or re-enable the Autostop system. After the vehicle is turned off the Autostop system will turn back on the next time the vehicle is started.

Power Supply Transformer

The DC to DC converter monitors battery voltage and will maintain operating voltage to the radio, instrument cluster and instrument panel displays. The DC to DC converter will provide a boosted voltage to sensitive loads during Autostart to ensure proper operation of the driver informational displays.

Instrument Cluster

In order to differentiate between a normal engine shut down (engine speed 0 RPM) and when the engine has been shut down by the Stop/Start System, the tachometer needle will rest at the Autostop indicator icon (500 RPM point) indicating the engine has been shut down by the Stop/Start System. Once the engine is restarted, or the ECO button has disengaged Autostop, the tachometer will function normally.

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Section 5

HVAC

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Description and Operation 5-3
Heating and Air Conditioning System Description and Operation 5-3

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Description and Operation 5-10
Automatic HVAC Description and Operation 5-10

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HVAC Schematics 5-15
Description and Operation 5-20
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Heating, Ventilation, and Air Conditioning

Description and Operation

Heating and Air Conditioning System Description and Operation

Engine Coolant

Engine coolant is the key element of the heating system. The engine thermostat controls the normal engine operating coolant temperature. Coolant pumped out of the engine enters the heater core through the inlet heater hose. The air flowing through the Heating, Ventilation, and Air Conditioning (HVAC) module absorbs the heat of the coolant flowing through the heater core. The coolant then exits the heater core through the heater outlet hose and returns back to the engine block.

Air Conditioning

Refrigerant is the key element in an air conditioning system. R–1234yf is a very low temperature gas that can transfer the undesirable heat from the passenger compartment to the outside air.

The air conditioning compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure in the air conditioning system. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor through the discharge hose, and forced to flow to the condenser and then through the balance of the air conditioning system. The air conditioning system is mechanically protected with the use of a high pressure relief valve. If the high pressure air conditioning switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line, to the Thermostatic Expansion Valve (TXV).

The TXV is located at the evaporator inlet. The TXV is the dividing point for the high and the low pressure sides of the air conditioning system. As the refrigerant passes through the TXV, the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to boil at the TXV. The TXV also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the TXV flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the HVAC module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant to boil inside the evaporator core.

The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the compressor, in a vapor state. This completes the air conditioning cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

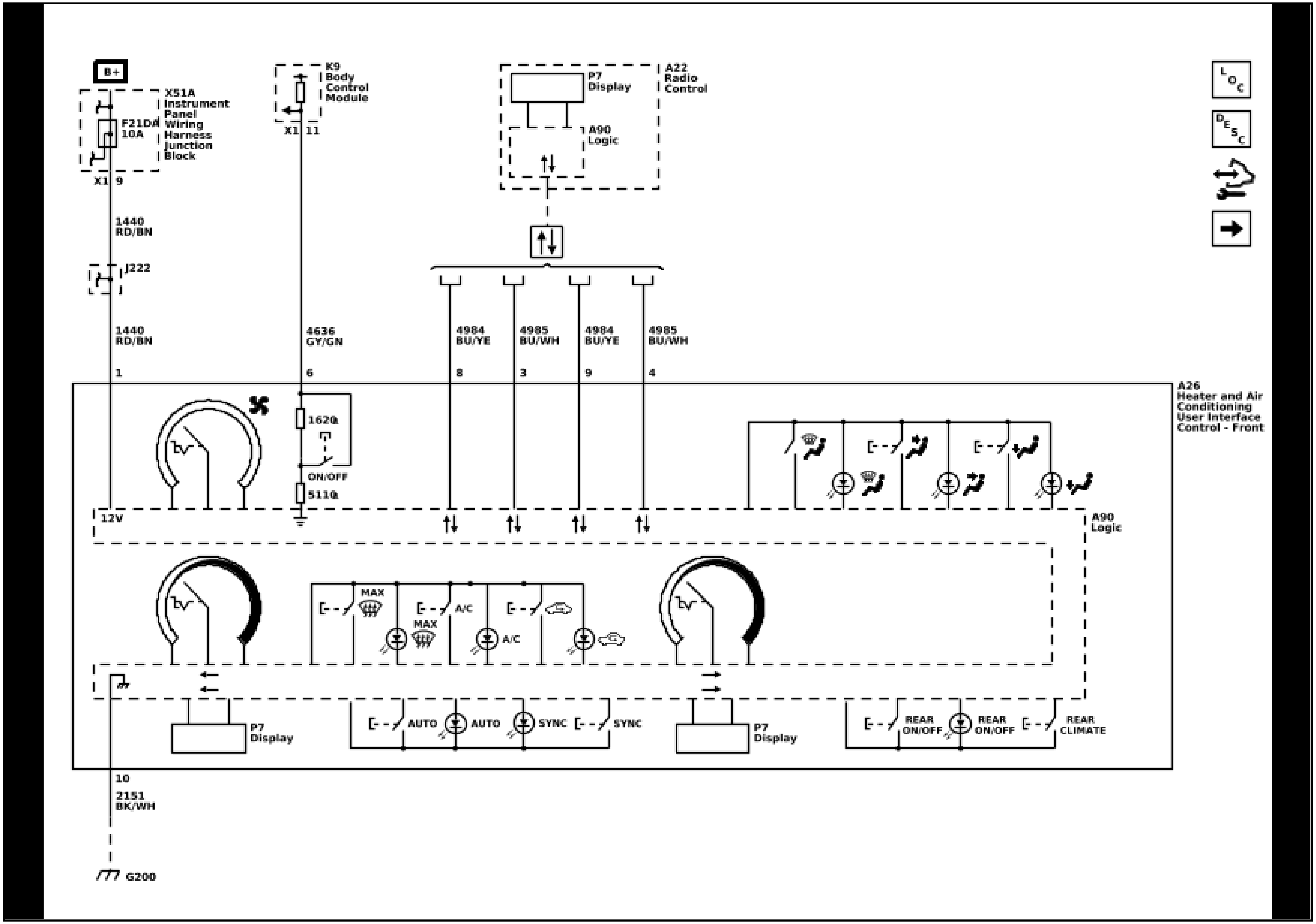
Vehicles equipped with R-1234yf may utilize an integral heat exchanger in the air conditioning line set. An integral heat exchanger transfers heat between liquid line and the suction line. It uses the cold vapor from the evaporator to cool the warm liquid refrigerant before it enters the TXV, resulting in increased cooling and higher efficiency.

The conditioned air is distributed through the HVAC module for passenger comfort. The moisture removed from the passenger compartment will also change form, or condense, and is discharged from the HVAC module as water.

HVAC - Automatic

Schematic and Routing Diagrams

HVAC Schematics (Power, Ground, Serial Data and HVAC Controls)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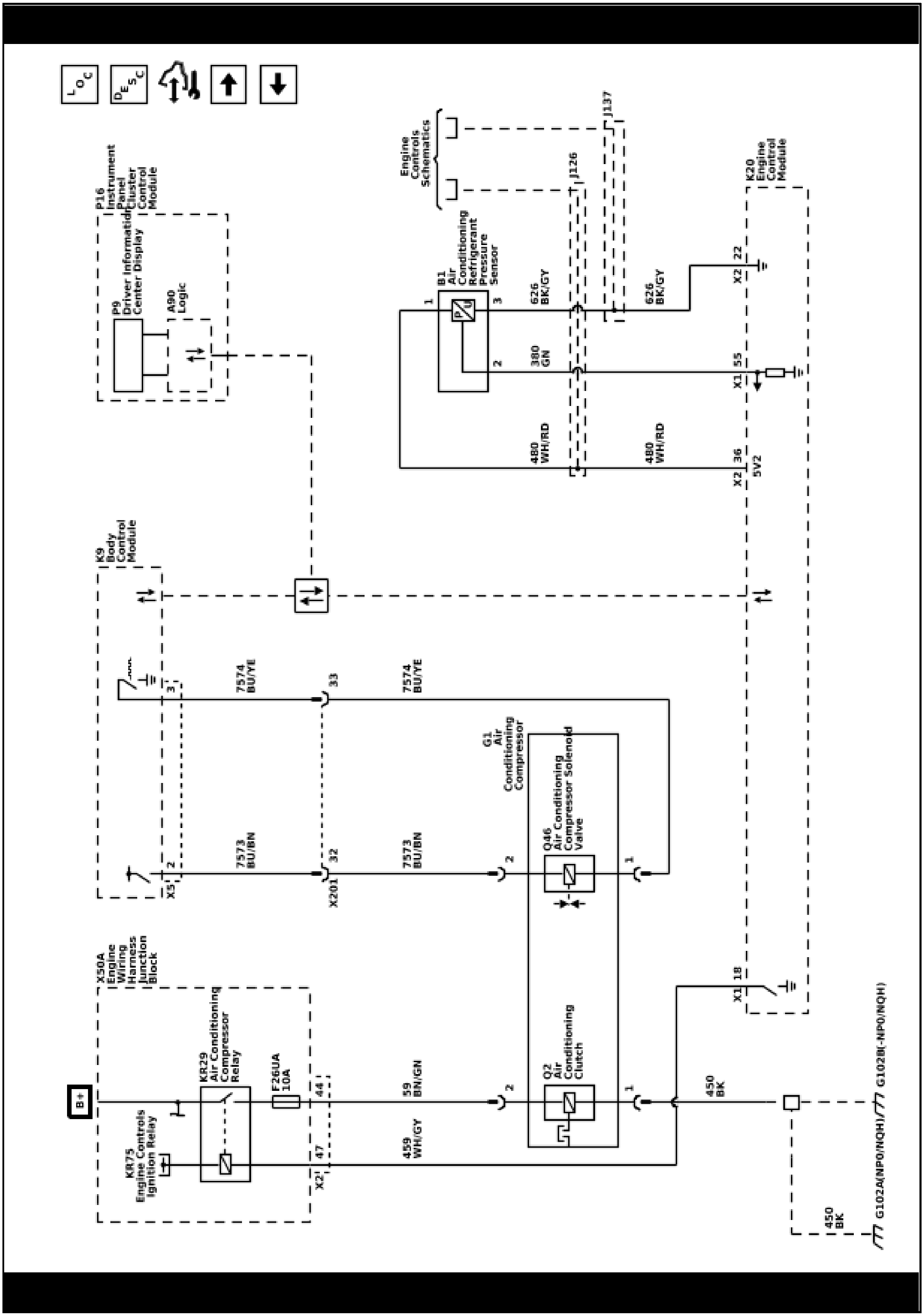
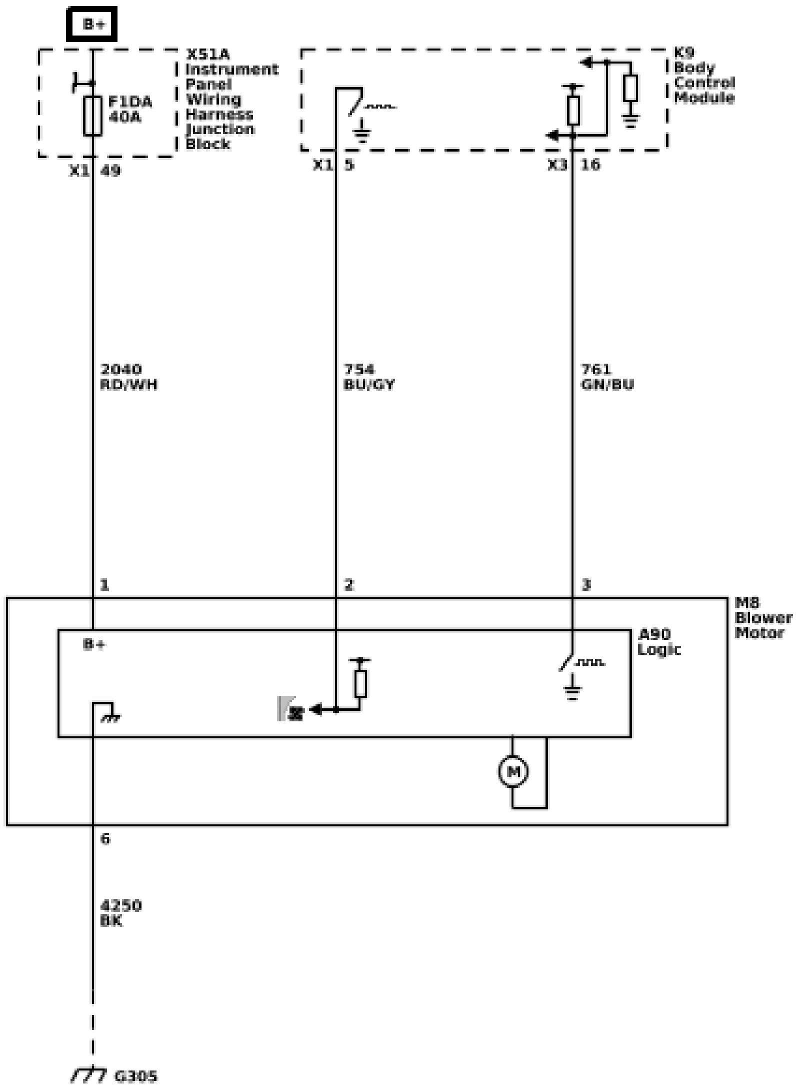
X51A Instrument Panel Wiring Harness Junction Block
F21DA 10A
X1 9
1440 RD/BN
J222
1440 RD/BN
1
K9 Body Control Module
X1 11
4636 GY/GN
6
A22 Radio Control
P7 Display
A90 Logic
4984 BU/YE
8
4985 BU/WH
3
4984 BU/YE
9
4985 BU/WH
4
A26 Heater and Air Conditioning User Interface Control - Front
1620Ω
ON/OFF
511Ω
12V
A90 Logic
MAX
MAX
A/C
A/C
P7 Display
AUTO
AUTO
SYNC
SYNC
P7 Display
REAR ON/OFF
REAR ON/OFF
REAR CLIMATE
10
2151 BK/WH
G200
L O C
D E S C

6331783

HVAC Schematics (A/C Compressor Controls)


6331784
B+
X50A Engine Wiring Harness Junction Block
KR75 Engine Controls Ignition Relay
KR29 Air Conditioning Compressor Relay
F26UA 10A
X2 44
X2 47
59 BN/GN
459 WH/GY
Q2 Air Conditioning Clutch
2
1
450 BK
G102A(NP0/NQH)
G102B(-NP0/NQH)
450 BK
X1 18
K9 Body Control Module
X5 2
3
7573 BU/BN
7574 BU/YE
X201 32
33
G1 Air Conditioning Compressor
Q46 Air Conditioning Compressor Solenoid Valve
P16 Instrument Panel Cluster Control Module
P9 Driver Information Center Display
A90 Logic
B1 Air Conditioning Refrigerant Pressure Sensor
1
2
3
480 WH/RD
380 GN
626 BK/GY
J126
J137
Engine Controls Schematics
K20 Engine Control Module
X2 36 5V2
X1 55
X2 22

HVAC Schematics (Blower Motor)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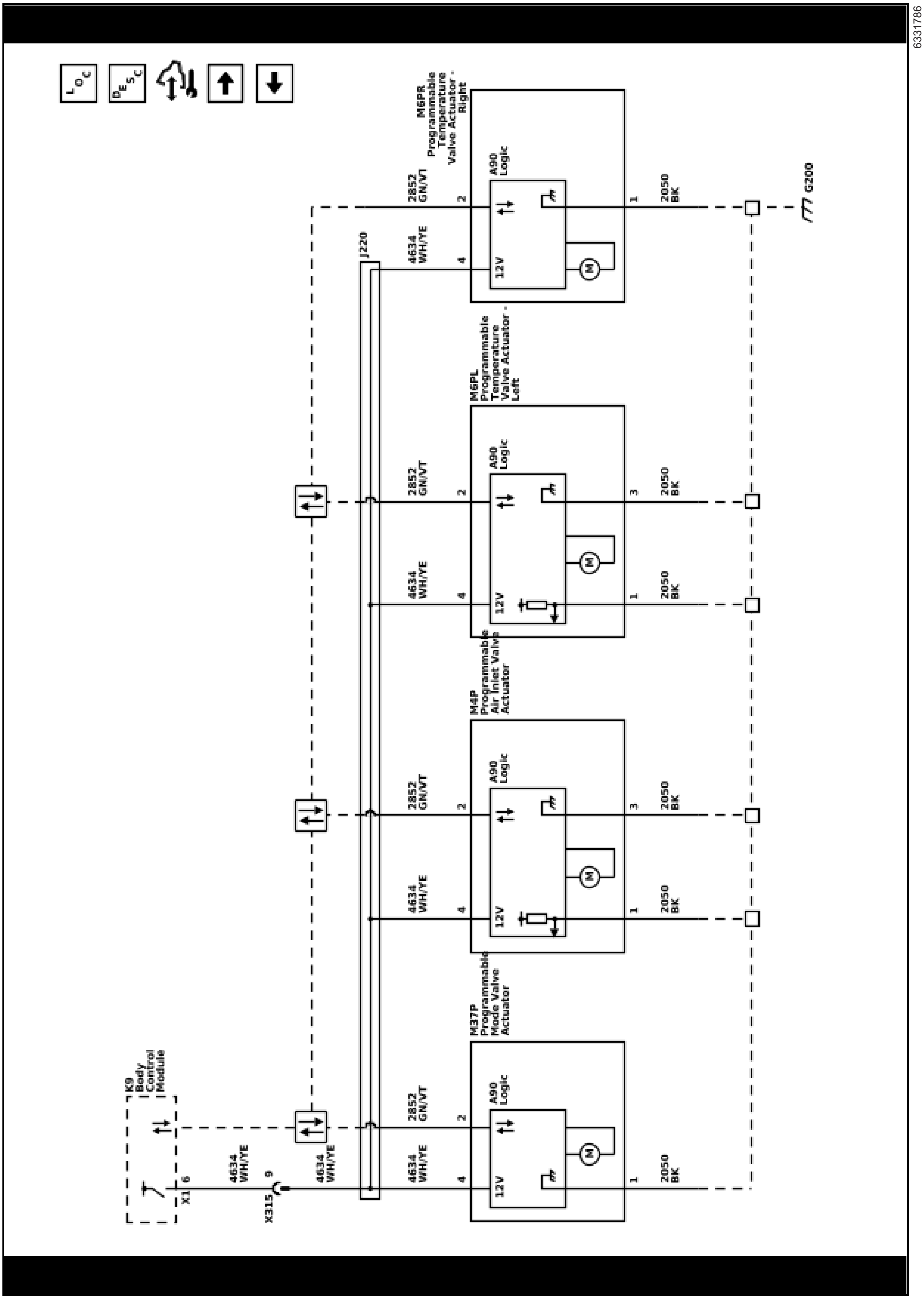
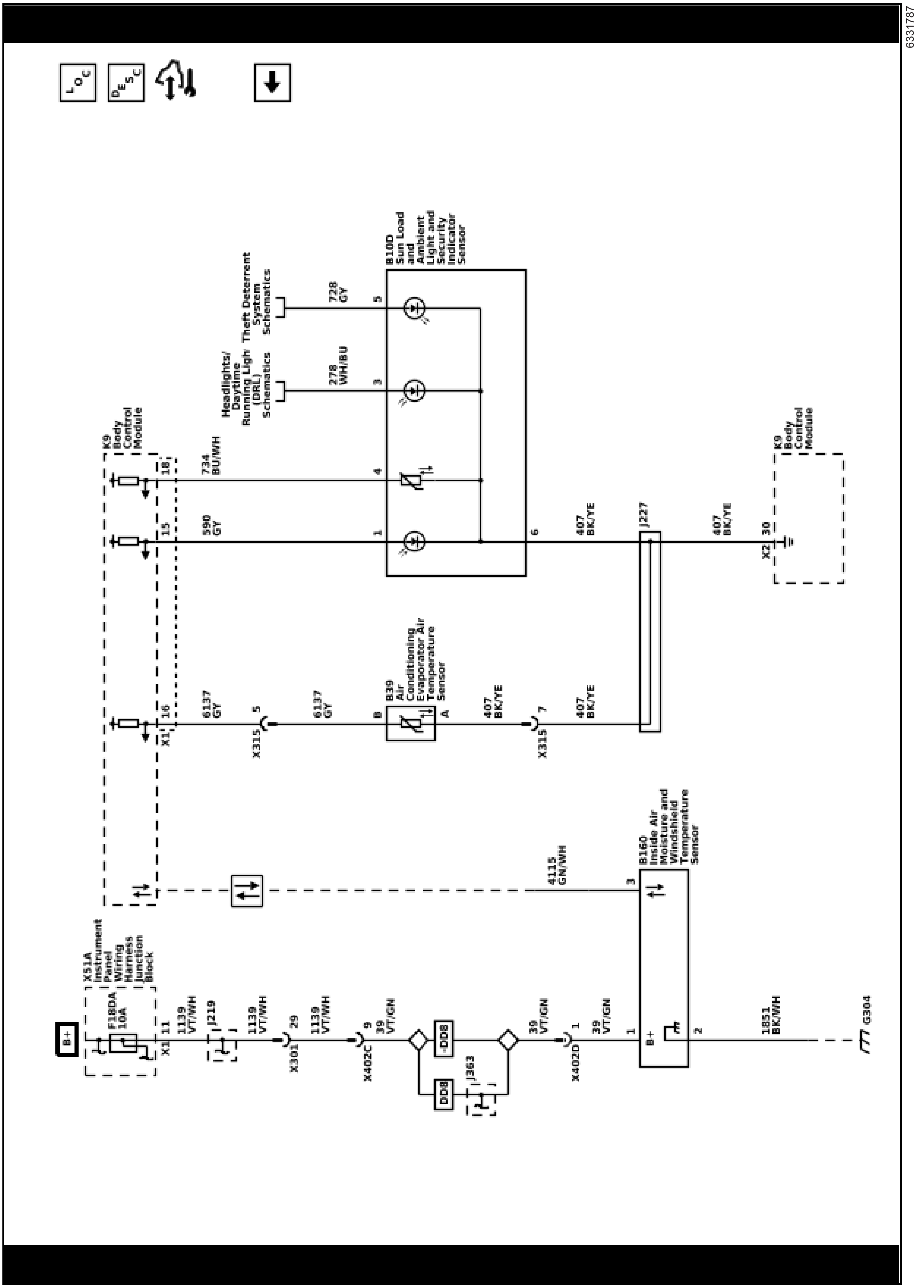
X51A
Instrument
Panel
Wiring
Harness
Junction
Block
F1DA
40A
X1 49
K9
Body
Control
Module
X1 5
X3 16
2040
RD/WH
754
BU/GY
761
GN/BU
1
2
3
M8
Blower
Motor
A90
Logic
B+
M
6
4250
BK
G305

6331785

HVAC Schematics (Mode and Temperature Control Actuators)


6331786
LOC
DESC
K9 Body Control Module
X1 6
4634 WH/YE
9
X315
4634 WH/YE
J220
M37P Programmable Mode Valve Actuator
M4P Programmable Air Inlet Valve Actuator
M6PL Programmable Temperature Valve Actuator - Left
M6PR Programmable Temperature Valve Actuator - Right
A90 Logic
12V
M
4634 WH/YE
4
2852 GN/VT
2
1
3
2050 BK
G200

HVAC Schematics (Windshield Sensors and A/C Evaporator Temperature Sensor)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X1 11
1139 VT/WH
J219
1139 VT/WH
X301 29
1139 VT/WH
X402C 9
39 VT/GN
-DD8
DD8
J363
39 VT/GN
X402D 1
39 VT/GN
B160 Inside Air Moisture and Windshield Temperature Sensor
1
B+
2
1851 BK/WH
G304
3
4115 GN/WH
K9 Body Control Module
X1 16
6137 GY
X315 5
6137 GY
B39 Air Conditioning Evaporator Air Temperature Sensor
B
A
407 BK/YE
X315 7
407 BK/YE
J227
15
590 GY
18
734 BU/WH
B10D Sun Load and Ambient Light and Security Indicator Sensor
1
4
3
5
6
278 WH/BU
728 GY
Headlights/ Daytime Running Ligh (DRL) Schematics
Theft Deterrent System Schematics
407 BK/YE
407 BK/YE
X2 30
K9 Body Control Module

Description and Operation

Automatic HVAC Description and Operation

The air temperature and the air delivery description and operation are divided into the following:

- HVAC Control Components
- Air Speed and Blower Motor
- Air Delivery
- Heating and A/C Operation
- Recirculation Operation
- Automatic Operation
- Engine Coolant and A/C System Refrigerant

HVAC Control Components

K9 Body Control Module

The body control module (BCM) is a CAN device that interfaces between the operator and the HVAC system to maintain and control desired air temperature and air distribution settings. The BCM provides a device ON-Signal for the HVAC controls. The BCM provides blower, air delivery mode and air temperature control.

A26 Heater and Air Conditioning User Interface Control - Front

The HVAC control contains all switches which are required to control the functions of HVAC and serve as interface between the operator and the BCM. The selected values are passed to the BCM via serial data.

Actuators

Doors in the HVAC case assembly are used to control air flow. The BCM operates the doors through the use of actuators, with one actuator being used for each door. The system has the following air control doors and associated actuators: mode, left and right temperature, and recirculation.

Each actuator used in the system is a LIN device controlled by the BCM. The BCM supplies a 12 V reference voltage to the actuators, and ground is provided by the wiring harness. When the BCM sends a request message to the actuator, the actuator then operates internal stepper motors to move the door to the required position.

Air Speed and M8 Blower Motor

The selected blower motor speed is passed from the controls to the BCM via serial data.

The motor uses a fused B+, ground, control, and speed output signal circuits to operate. The blower motor speed is controlled by increasing or decreasing the voltage drop on the ground side of the blower motor speed control circuit. The BCM provides a low side pulse width modulation (PWM) signal to the blower motor to request a specific motor speed. The blower motor internal circuitry translates the PWM signal and drives the motor accordingly.

The blower motor has a signal wire used to output a speed signal. The signal is monitored by the BCM. The BCM monitors the blower motor speed to modify the total commanded engine coolant flow rate, which is a percentage of available coolant flow sent to the heater core for occupant comfort and windshield defrosting. The HVAC Blower Speed is monitored so that the ECM can optimize engine coolant flow for fuel economy and emissions.

Afterblow

Afterblow is a feature that dries the evaporator core by operating the blower motor after the engine is turned OFF under certain conditions. This reduces the amount of moisture that can create undesirable odors. For additional information on afterblow, the default setting, and changing the setting, refer to Afterblow Configuration .

Duct Air Temperature

Physical duct air temperature sensors are not used with the front system. The air temperature in the air distribution ducts is calculated by the BCM based on the engine coolant temperature, coolant flow, evaporator temperature, outside air temperature, solar load, blower motor speed, air inlet door position, and temperature door position information. The BCM uses the values to calculate actuator position.

B39 Air Conditioning Evaporator Air Temperature Sensor

The evaporator temperature sensor is a 2-wire negative temperature coefficient thermistor. The sensor operates within a temperature range of −40 to +85°C (−40 to +185°F). The sensor is installed near the evaporator core to measure the air temperature exiting the core.

Based on vehicle operating conditions and operator settings, the HVAC software algorithms will determine a target evaporator air temperature. The operation of the compressor solenoid will be adjusted as needed to quickly reach and maintain the targeted temperature.

B1 Air Conditioning Refrigerant Pressure Sensor

The A/C refrigerant pressure sensor is a 3-wire piezoelectric pressure transducer. A 5 V reference voltage, low reference, and signal circuits enable the sensor to operate. The A/C pressure signal can be between 0.2–4.8 V. When the A/C refrigerant pressure is low, the signal value is near 0 V. When the A/C refrigerant pressure is high, the signal value is near 5 V. The engine control module (ECM) converts the voltage signal to a pressure value. When pressure is too high or too low, the ECM will not allow the A/C compressor clutch to engage.

G1 Air Conditioning Compressor

The A/C compressor uses a conventional belt driven magnetic clutch to engage and mechanically turn the compressor. When the A/C switch is pressed, the BCM sends an A/C request message to the ECM via serial data. If specific criteria is met, the ECM then grounds the A/C compressor clutch relay control circuit, which will switch the A/C compressor clutch relay. With the relay contacts closed, battery voltage is supplied to the permanently grounded A/C compressor clutch. The A/C compressor clutch will then be activated.

This A/C system utilizes a variable displacement solenoid valve to alter the amount of displacement created by the turning of the compressor. The BCM provides both battery voltage and a pulse width modulated ground to the Q46 Air Conditioning

Compressor Solenoid Valve. When the A/C switch is pressed, the BCM grounds the variable displacement solenoid using a (PWM) signal in order to determine the amount of compressor displacement. The performance of the A/C compressor is regulated based on cooling load.

B160 Inside Air Moisture and Windshield Temperature Sensor

The windshield temperature and inside moisture sensor includes the relative humidity sensor, windshield temperature sensor and humidity sensing element temperature sensor.

This sensor assembly provides information about:

- Relative humidity level at windshield (passenger compartment side)
- Temperature of the windshield (passenger compartment side)
- Temperature of the humidity sensor element

The relative humidity sensor measures the relative humidity of the passenger compartment side of the windshield. It also detects the temperature of the windshield surface on the passenger compartment side. Both values are used as control inputs for the BCM application to calculate the fog risk on windshield compartment side and ability to reduce fuel consumption by decreasing A/C compressor power to a minimum without causing any fog. The sensor will also enable partial recirculation mode in order to improve heat-up performance of the passenger compartment under cold ambient temperature conditions without the risk of mist build-up on the windshield. The humidity sensor element temperature sensor supplies the temperature of the humidity sensor element. It is only needed if the thermal contact between the humidity sensing element and the inside windshield surface is not sufficient.

The sensor is a LIN device, and the sensor values are transmitted to the BCM via serial data.

When equipped with CE1, the sensor is part of the B117A Windshield Outside Moisture/Ambient Light and Humidity Sensor LIN windshield sensor array, and the windshield temperature and humidity values are transmitted to the BCM via serial data.

B10D Sun Load Temperature and Ambient Light and Security Indicator Sensor

The ambient light/sunload sensor includes the solar sensor and passenger compartment temperature sensor.

The solar sensor is connected to a low reference and 5 V supply through the BCM. As the sunload increases, the sensor signal voltage also increases and vice versa. The signal provided to the BCM varies between 1.2–4.85 V.

The passenger compartment temperature sensor is a negative temperature coefficient thermistor, connected to a low reference and 5 V supply through the BCM. As the air temperature increases, the sensor resistance decreases. The signal varies between 0–5 V.

Bright or high intensity light can cause the vehicles interior temperature to increase. The HVAC system uses the sensor values and compensates for the increased temperature to maintain the system settings.

Air Delivery

The BCM controls the distribution of air by the use of recirculation and mode door actuators. The modes that may be selected are:

- Defrost: windshield outlet
- Panel: dashboard outlets
- Floor: front footwell outlets
- Defog: defrost + floor
- Bi-level: panel + floor
- Tri-level: panel + defrost + floor
- Hi-level: panel + defrost

The desired air distribution mode can be selected with the air distribution switches at the HVAC control. The HVAC control delivers the values to the BCM via serial data. The BCM sends a request to the mode door actuator to move the door to the required position. Depending on the position of the door, air is distributed through various ducts leading to the outlets in the dash. When defrost airflow is active, the BCM will move the recirculation actuator to outside air, to aid in reducing window fogging. When defrost is selected the blower motor will be activated, regardless of the coolant temperature. A/C is available in all modes.

Refer to the owners manual for operation of the HVAC controls and mode selection.

Recirculation Operation

The recirculation switch is integrated into the HVAC control. The selected recirculation setting is sent to the BCM via serial data. The BCM controls the air intake using the recirculation actuator. In recirculation mode the recirculation door is positioned to block outside air from entering and circulate the air within the vehicle. In outside air mode the recirculation door is positioned to route outside air into the vehicle.

Recirculation is only available if the defrost mode is not active. When the defrost mode is active, the recirculation actuator positions the recirculation door so that outside air is circulated to the windshield to reduce fogging.

In automatic mode the values of the sensors are used as inputs for the BCM to calculate the fog risk on the passenger compartment side of the windshield. The A/C compressor and the defrost mode may be activated to prevent or remove fog on the passenger compartment side of the windshield.

In automatic mode, a partial recirculation mode may be commanded to accelerate cabin heating or cooling and reduce energy usage. The recirculation indicator remains illuminated at all times, regardless of the actual operating mode determined by the system.

Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. Regardless of the temperature setting, the following may affect the rate that the HVAC system can achieve the desired temperature:

- Recirculation setting
- Difference between inside and desired temperature
- Blower motor speed setting
- Mode setting
- Dashboard outlet open/closed position

When the A/C switch or the AUTO switch is pressed, the HVAC control sends a signal to the BCM via serial data. The BCM evaluates this signal and sends an A/C request signal to the ECM via CAN-Bus. The ECM checks all preconditions before releasing and if all conditions are met sends a release signal back to the BCM. The A/C compressor is activated by the BCM. The BCM supplies battery voltage to the A/C compressor solenoid. When the A/C switch is pressed, the BCM provides a pulse width modulation (PWM) signal to the A/C compressor solenoid in order to command the performance of the A/C compressor. The performance of the A/C compressor is regulated using evaporator temperature and engine load.

The A/C indicator does not indicate the compressor is currently active. The A/C indicator shows that A/C has been requested and the system will activate the compressor as needed.

The following conditions must be met in order to activate the A/C compressor:

- Battery voltage is between 9–18 V
- Engine coolant temperature is less than 124°C (255°F)
- Engine speed is greater than 600 RPM
- Engine speed is less than 5 500 RPM
- A/C high side pressure is between 269–2 929 kPa (39–425 PSI)
- Throttle position is less than 100%
- Evaporator temperature is greater than 3°C (38°F)
- ECM does not detect immoderate torque load
- ECM does not detect insufficient idle quality
- The ambient temperature is above 1°C (34°F)

The sensor information is used by the ECM to determine the following:

- The A/C high side pressure
- An A/C system load on the engine
- An immoderate A/C high side pressure
- The heat load at the A/C condenser

The air streams into the passenger compartment through the heater core and the evaporator core. The air temperature actuator drives the mixed air door to direct the airflow. If the interior temperature should be increased, the mixed air door is put into the position in which more air streams through the heater core. If the interior temperature should be decreased, the mixed air door is put into the position in which more air streams through the evaporator core.

Automatic Operation

In automatic operation, the BCM maintains the comfort level inside of the vehicle by controlling the A/C compressor solenoid, the blower motor, the air temperature actuators, mode actuator and recirculation actuator.

The automatic mode indicator shows that the system is in full automatic operation. If an individual setting is changed (excluding temperature), the automatic indicator will turn off, and that function will enter manual control. All other functions will remain under automatic control unless manually changed.

To put the HVAC system in automatic mode, the following is required:

1. The auto switch must be activated.
2. The air temperature switch must not be in either the full hot or full cold position.

Once the desired temperature is reached, the blower motor, mode, recirculation and temperature actuators automatically adjust to maintain the temperature selected. The BCM performs the following functions to maintain the desired air temperature:

- Monitors the following:
  - – Ambient (outside) air temperature sensor
  - – Passenger compartment temperature sensor
  - – Calculated front duct air temperatures
  - – Windshield temperature and inside moisture sensor
  - – Evaporator temperature sensor
  - – Ambient light/sunload sensor
- Regulate the blower motor speed
- Position the air temperature actuators
- Position the mode door actuators
- Position the recirculation actuator
- Control of the A/C compressor solenoid

When the temperature setting is set to full hot, the blower speed will increase gradually as the coolant warms to normal operating temperature. When normal engine operating temperature is reached the blower stays on high speed and the air temperature actuators stays in the full heat position.

When the temperature setting is set to full cold, the blower will immediately operate at high speed and the air temperature actuators move to full cold position. The mode actuator moves to the panel position and the recirculation actuator moves to the recirculation position.

Under cold ambient temperatures, the automatic HVAC system provides heat in the most efficient manner. The operator can select an extreme temperature setting but the system will not warm the vehicle any faster. Under warm ambient temperatures, the automatic HVAC system also provides air conditioning in the most efficient manner. Selecting an extreme cool temperature will not cool the vehicle any faster.

In automatic mode the values of the windshield temperature and inside moisture sensor are used as control inputs for the BCM application to calculate the fog risk on the passenger compartment side of the windshield and ability to reduce fuel consumption by decreasing A/C compressor power to a minimum without causing any fog. The A/C compressor and the defrost mode are activated to prevent or remove fog on the passenger compartment side of the windshield. The sensor will also enable partial recirculation mode in order to improve heat-up performance of the passenger compartment under cold ambient temperature conditions without the risk of mist build-up on the windshield.

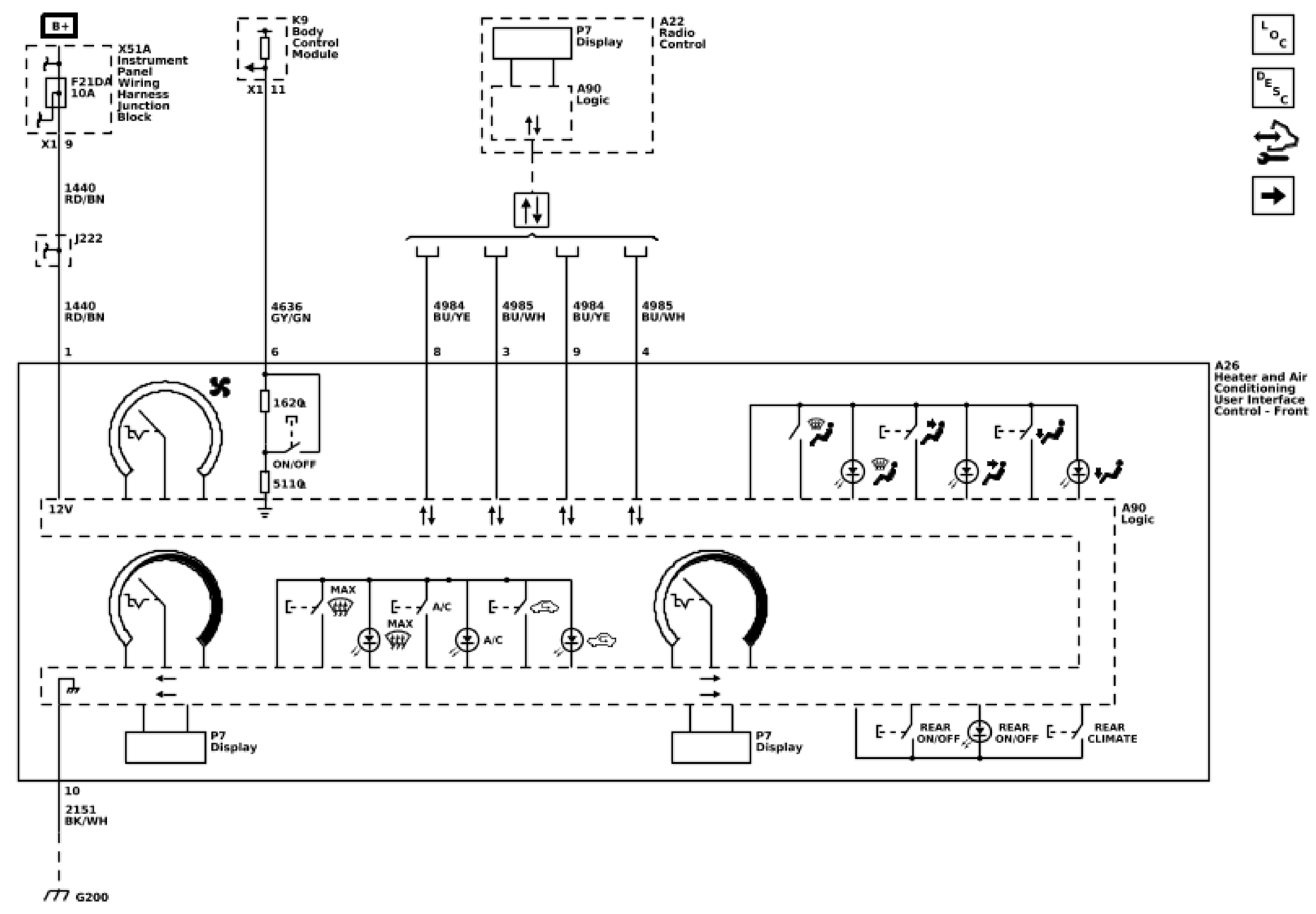
Engine Coolant and A/C System Refrigerant

For information on engine coolant, coolant flow, A/C refrigerant, and the A/C refrigerant cycle, refer to *Heating and Air Conditioning System Description and Operation on page 5-3*.

HVAC - Manual

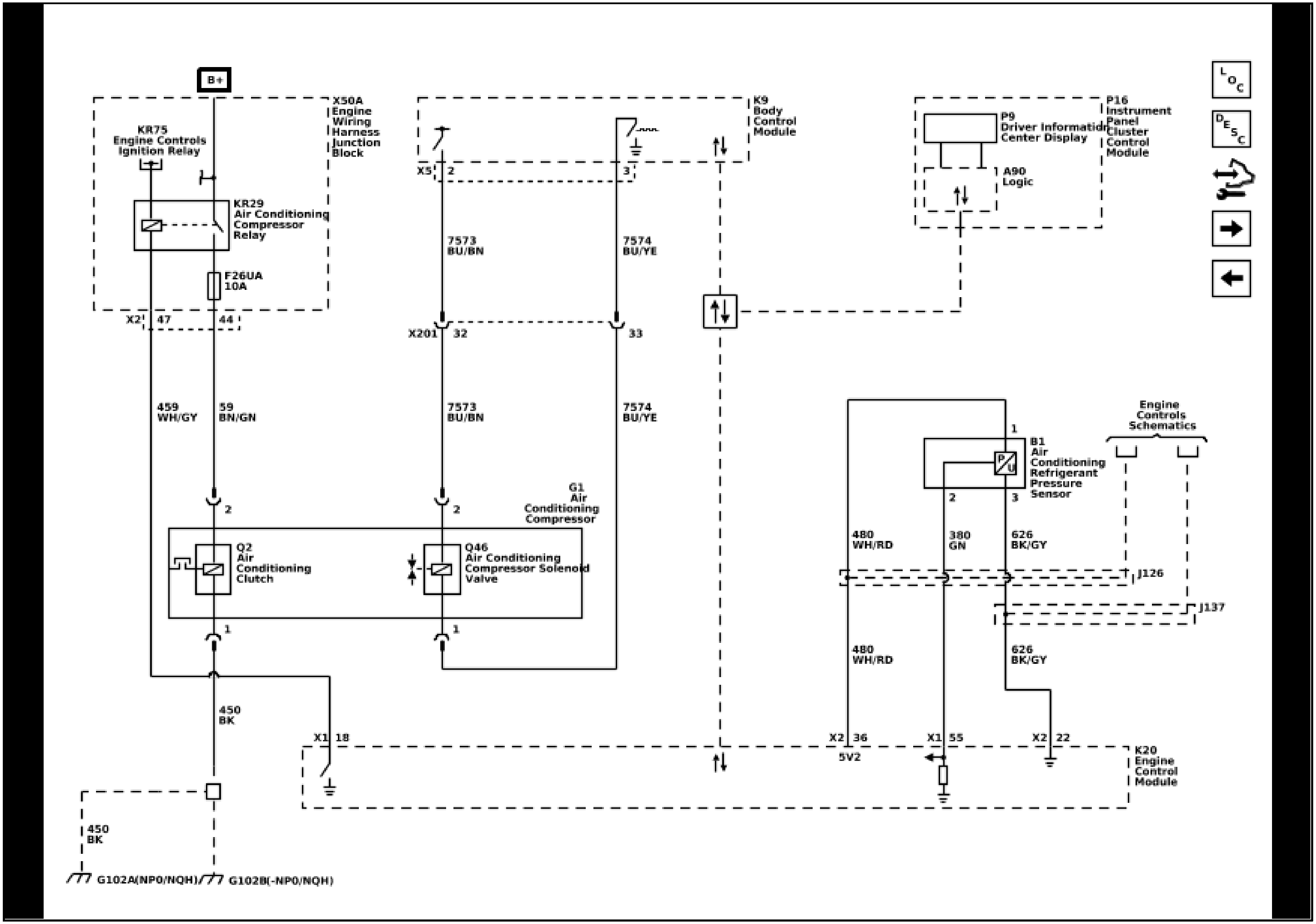
Schematic and Routing Diagrams

HVAC Schematics (Power, Ground, Serial Data and HVAC Controls)

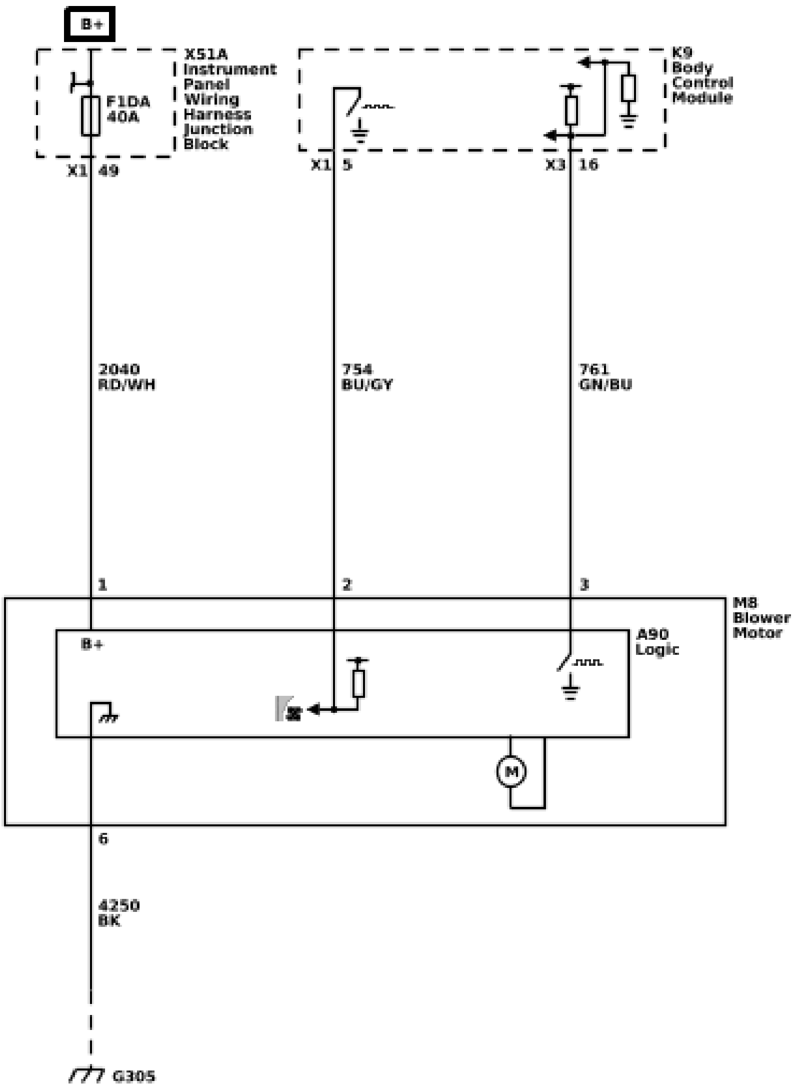

B+
X51A Instrument Panel Wiring Harness Junction Block
F21DA 10A
X1 9
1440 RD/BN
J222
1440 RD/BN
1
K9 Body Control Module
X1 11
4636 GY/GN
6
A22 Radio Control
P7 Display
A90 Logic
4984 BU/YE
4985 BU/WH
4984 BU/YE
4985 BU/WH
8
3
9
4
A26 Heater and Air Conditioning User Interface Control - Front
1620Ω
ON/OFF
5110Ω
12V
A90 Logic
MAX
MAX
A/C
A/C
P7 Display
P7 Display
REAR ON/OFF
REAR ON/OFF
REAR CLIMATE
10
2151 BK/WH
G200

6331788

HVAC Schematics (A/C Compressor Controls)

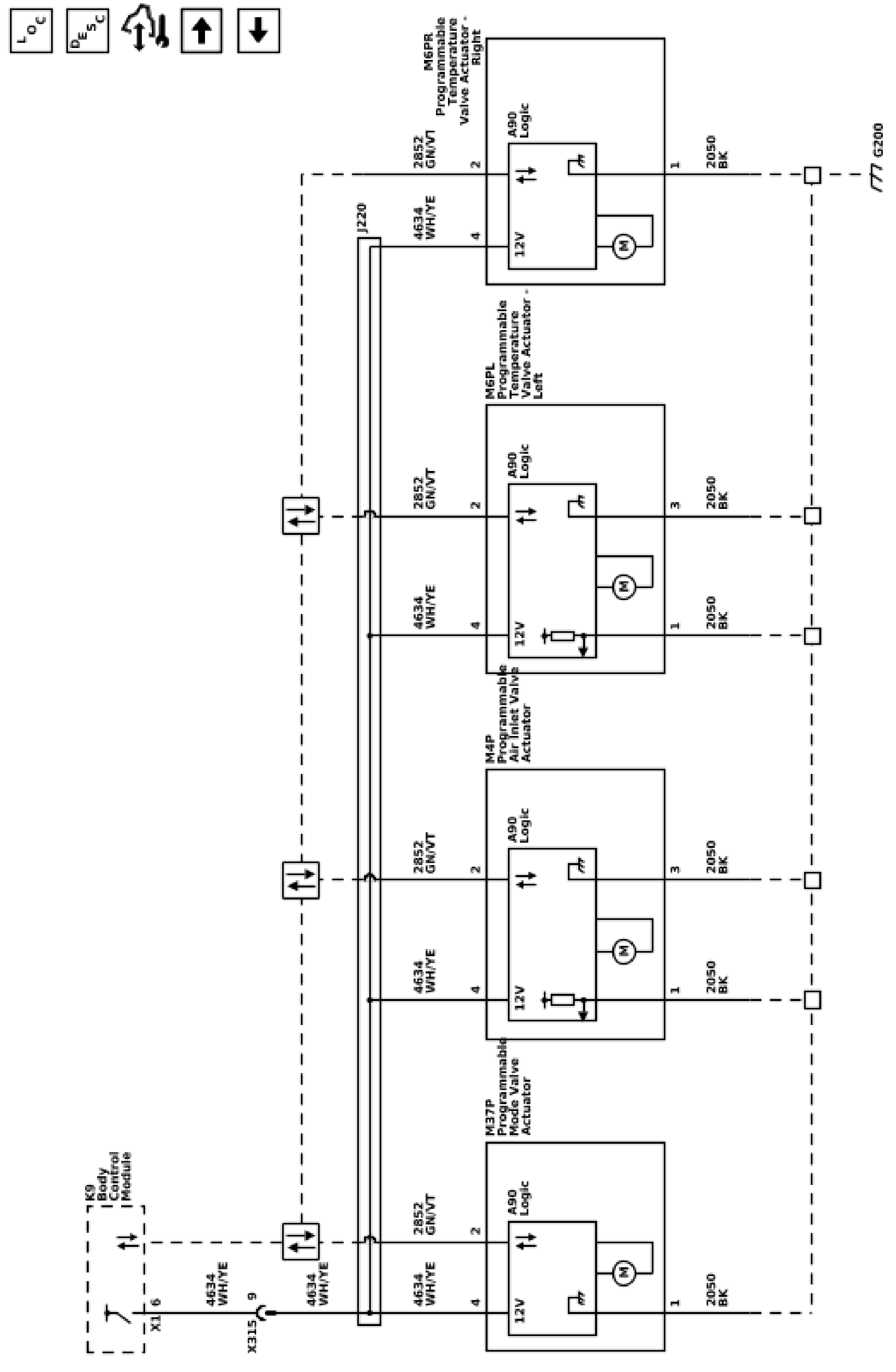

B+
X50A Engine Wiring Harness Junction Block
KR75 Engine Controls Ignition Relay
KR29 Air Conditioning Compressor Relay
F26UA 10A
X2 47 44
459 WH/GY
59 BN/GN
K9 Body Control Module
X5 2 3
7573 BU/BN
7574 BU/YE
X201 32 33
P16 Instrument Panel Cluster Control Module
P9 Driver Information Center Display
A90 Logic
G1 Air Conditioning Compressor
Q2 Air Conditioning Clutch
Q46 Air Conditioning Compressor Solenoid Valve
2
1
450 BK
G102A(NP0/NQH)
G102B(-NP0/NQH)
Engine Controls Schematics
B1 Air Conditioning Refrigerant Pressure Sensor
1 2 3
P U
480 WH/RD
380 GN
626 BK/GY
J126
J137
X1 18
X2 36
5V2
X1 55
X2 22
K20 Engine Control Module
6331789

HVAC Schematics (Blower Motor)


B+
X51A
Instrument
Panel
Wiring
Harness
Junction
Block
F1DA
40A
X1 49
K9
Body
Control
Module
X1 5
X3 16
2040
RD/WH
754
BU/GY
761
GN/BU
1
2
3
M8
Blower
Motor
A90
Logic
B+
M
6
4250
BK
G305

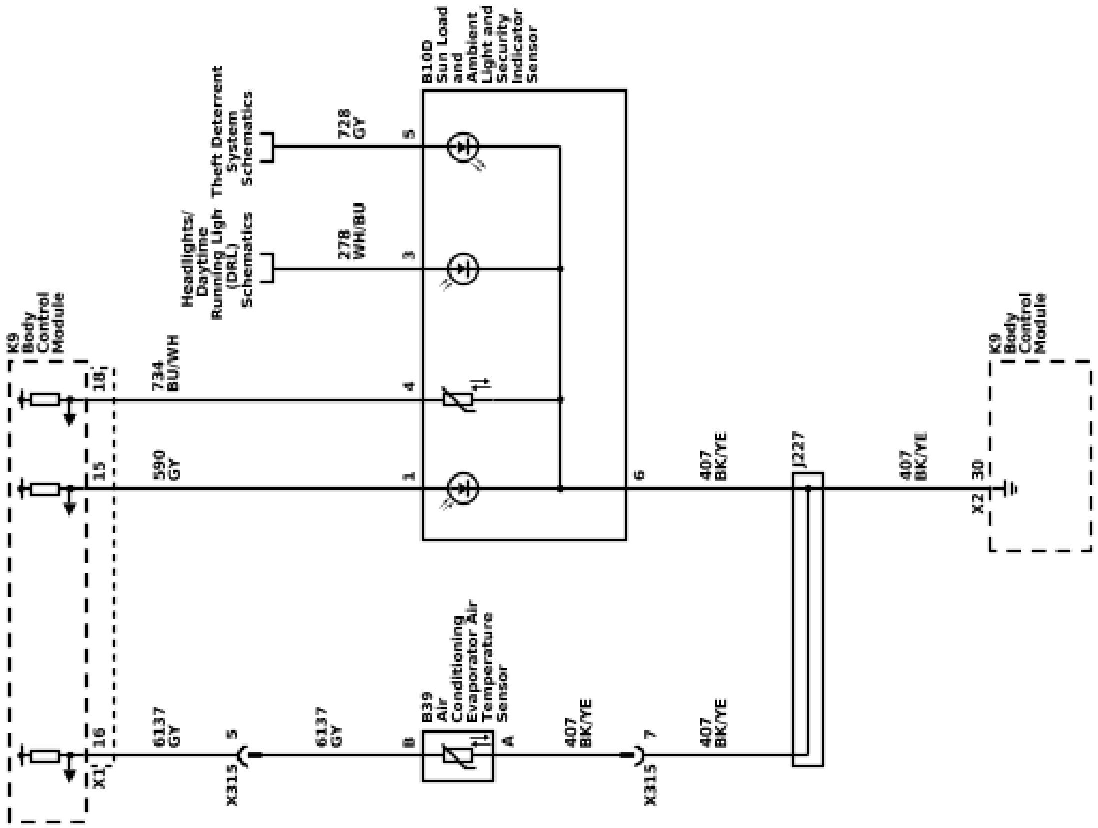
6331790

HVAC Schematics (Mode and Temperature Control Actuators)


6331791
L O C
D E S C
K9 Body Control Module
X1 6
4634 WH/YE
X315 9
4634 WH/YE
J220
M37P Programmable Mode Valve Actuator
M4P Programmable Air Inlet Valve Actuator
M6PL Programmable Temperature Valve Actuator - Left
M6PR Programmable Temperature Valve Actuator - Right
A90 Logic
2852 GN/VT
4634 WH/YE
2050 BK
12V
M
1
2
3
4
G200

6331792

HVAC Schematics (Windshield Sensors and A/C Evaporator Temperature Sensor)


K9 Body Control Module
X1
18
15
16
734 BU/WH
590 GY
6137 GY
Headlights/ Daytime Running Ligh (DRL) Schematics
Theft Deterrent System Schematics
278 WH/BU
728 GY
B10D Sun Load and Ambient Light and Security Indicator Sensor
1
3
4
5
6
X315
5
6137 GY
B39 Air Conditioning Evaporator Air Temperature Sensor
B
A
407 BK/YE
X315
7
407 BK/YE
J227
407 BK/YE
K9 Body Control Module
X2
30

Description and Operation

Manual HVAC Description and Operation

The air temperature and the air delivery description and operation are divided into the following:

- HVAC Control Components
- Air Speed and Blower Motor
- Air Delivery
- Heating and A/C Operation
- Recirculation Operation
- Engine Coolant and A/C System Refrigerant

HVAC Control Components

K9 Body Control Module

The body control module (BCM) is a CAN device that interfaces between the operator and the HVAC system to maintain and control desired air temperature and air distribution settings. The BCM provides a device ON-Signal for the HVAC controls. The BCM provides blower, air delivery mode and air temperature control.

A26 Heater and Air Conditioning User Interface Control - Front

The HVAC control contains all switches which are required to control the functions of HVAC and serve as interface between the operator and the BCM. The selected values are passed to the BCM via serial data.

Actuators

Doors in the HVAC case assembly are used to control air flow. The BCM operates the doors through the use of actuators, with one actuator being used for each door. The system has the following air control doors and associated actuators: mode, temperature, and recirculation.

Each actuator used in the system is a LIN device controlled by the BCM. The BCM supplies a 12 V reference voltage to the actuators, and ground is provided by the wiring harness. When the BCM sends a request message to the actuator, the actuator then operates internal stepper motors to move the door to the required position.

Air Speed and M8 Blower Motor

The selected blower motor speed is passed from the controls to the BCM via serial data.

The motor uses a fused B+, ground, control, and speed output signal circuits to operate. The blower motor speed is controlled by increasing or decreasing the voltage drop on the ground side of the blower motor speed control circuit. The BCM provides a low side pulse width modulation (PWM) signal to the blower motor to request a specific motor speed. The blower motor internal circuitry translates the PWM signal and drives the motor accordingly.

The blower motor has a signal wire used to output a speed signal. The signal is monitored by the BCM. The BCM monitors the blower motor speed to modify the total commanded engine coolant flow rate, which is a percentage of available coolant flow sent to the heater core for occupant comfort and windshield defrosting.

The HVAC Blower Speed is monitored so that the ECM can optimize engine coolant flow for fuel economy and emissions.

Afterblow

Afterblow is a feature that dries the evaporator core by operating the blower motor after the engine is turned OFF under certain conditions. This reduces the amount of moisture that can create undesirable odors. For additional information on afterblow, the default setting, and changing the setting, refer to Afterblow Configuration .

B39 Air Conditioning Evaporator Air Temperature Sensor

The evaporator temperature sensor is a 2-wire negative temperature coefficient thermistor. The sensor operates within a temperature range of −40 to +85°C (−40 to +185°F). The sensor is installed near the evaporator core to measure the air temperature exiting the core.

Based on vehicle operating conditions and operator settings, the HVAC software algorithms will determine a target evaporator air temperature. The operation of the compressor solenoid will be adjusted as needed to quickly reach and maintain the targeted temperature.

B1 Air Conditioning Refrigerant Pressure Sensor

The A/C refrigerant pressure sensor is a 3-wire piezoelectric pressure transducer. A 5 V reference voltage, low reference, and signal circuits enable the sensor to operate. The A/C pressure signal can be between 0.2–4.8 V. When the A/C refrigerant pressure is low, the signal value is near 0 V. When the A/C refrigerant pressure is high, the signal value is near 5 V. The engine control module (ECM) converts the voltage signal to a pressure value. When pressure is too high or too low, the ECM will not allow the A/C compressor clutch to engage.

G1 Air Conditioning Compressor

The A/C compressor uses a conventional belt driven magnetic clutch to engage and mechanically turn the compressor. When the A/C switch is pressed, the BCM sends an A/C request message to the ECM via serial data. If specific criteria is met, the ECM then grounds the A/C compressor clutch relay control circuit, which will switch the A/C compressor clutch relay. With the relay contacts closed, battery voltage is supplied to the permanently grounded A/C compressor clutch. The A/C compressor clutch will then be activated.

This A/C system utilizes a variable displacement solenoid valve to alter the amount of displacement created by the turning of the compressor. The BCM provides both battery voltage and a pulse width modulated ground to the Q46 Air Conditioning Compressor Solenoid Valve. When the A/C switch is pressed, the BCM grounds the variable displacement solenoid using a (PWM) signal in order to determine the amount of compressor displacement. The performance of the A/C compressor is regulated based on cooling load.

Air Delivery

The BCM controls the distribution of air by the use of recirculation and mode door actuators. The modes that may be selected are:

- Defrost: windshield outlet
- Panel: dashboard outlets
- Floor: front footwell outlets
- Defog: defrost + floor
- Bi-level: panel + floor
- Tri-level: panel + defrost + floor
- Hi-level: panel + defrost

The desired air distribution mode can be selected with the air distribution switches at the HVAC control. The HVAC control delivers the values to the BCM via serial data. The BCM sends a request to the mode door actuator to move the door to the required position. Depending on the position of the door, air is distributed through various ducts leading to the outlets in the dash. When defrost airflow is active, the BCM will move the recirculation actuator to outside air, to aid in reducing window fogging. When defrost is selected the blower motor will be activated, regardless of the coolant temperature. A/C is available in all modes.

Refer to the owners manual for operation of the HVAC controls and mode selection.

Recirculation Operation

The recirculation switch is integrated into the HVAC control. The selected recirculation setting is sent to the BCM via serial data. The BCM controls the air intake using the recirculation actuator. In recirculation mode the recirculation door is positioned to block outside air from entering and circulate the air within the vehicle. In outside air mode the recirculation door is positioned to route outside air into the vehicle.

Recirculation is only available if the defrost mode is not active. When the defrost mode is active, the recirculation actuator positions the recirculation door so that outside air is circulated to the windshield to reduce fogging.

Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. Regardless of the temperature setting, the following may affect the rate that the HVAC system can achieve the desired temperature:

- Recirculation setting
- Difference between inside and desired temperature
- Blower motor speed setting
- Mode setting
- Dashboard outlet open/closed position

When the A/C switch or the AUTO switch is pressed, the HVAC control sends a signal to the BCM via serial data. The BCM evaluates this signal and sends an A/C request signal to the ECM via CAN-Bus. The ECM checks all preconditions before releasing and if all conditions are met sends a release signal back to the BCM. The A/C compressor is activated by the BCM.

The BCM supplies battery voltage to the A/C compressor solenoid. When the A/C switch is pressed, the BCM provides a pulse width modulation (PWM) signal to the A/C compressor solenoid in order to command the performance of the A/C compressor. The performance of the A/C compressor is regulated using evaporator temperature and engine load.

The A/C indicator does not indicate the compressor is currently active. The A/C indicator shows that A/C has been requested and the system will activate the compressor as needed.

The following conditions must be met in order to activate the A/C compressor:

- Battery voltage is between 9–18 V
- Engine coolant temperature is less than 124°C (255°F)
- Engine speed is greater than 600 RPM
- Engine speed is less than 5 500 RPM
- A/C high side pressure is between 269–2 929 kPa (39–425 PSI)
- Throttle position is less than 100%
- Evaporator temperature is greater than 3°C (38°F)
- ECM does not detect immoderate torque load
- ECM does not detect insufficient idle quality
- The ambient temperature is above 1°C (34°F)

The sensor information is used by the ECM to determine the following:

- The A/C high side pressure
- An A/C system load on the engine
- An immoderate A/C high side pressure
- The heat load at the A/C condenser

The air streams into the passenger compartment through the heater core and the evaporator core. The air temperature actuator drives the mixed air door to direct the airflow. If the interior temperature should be increased, the mixed air door is put into the position in which more air streams through the heater core. If the interior temperature should be decreased, the mixed air door is put into the position in which more air streams through the evaporator core.

Engine Coolant and A/C System Refrigerant

For information on engine coolant, coolant flow, A/C refrigerant, and the A/C refrigerant cycle, refer to *Heating and Air Conditioning System Description and Operation on page 5-3*.

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Section 6

Power and Signal Distribution

Data Communications 6-3

Schematic and Routing Diagrams 6-3

Data Communication Schematics 6-4

Body Control System Schematics 6-20

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Data Link Communications Description and Operation 6-23

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Power Moding Schematics 6-599

Ground Distribution Schematics 6-601

Upfitter Provision Schematics 6-616

Component Locator 6-617

Master Electrical Component List 6-617

Description and Operation 6-662

Power Mode Description and Operation 6-662

Retained Accessory Power Description and Operation 6-666

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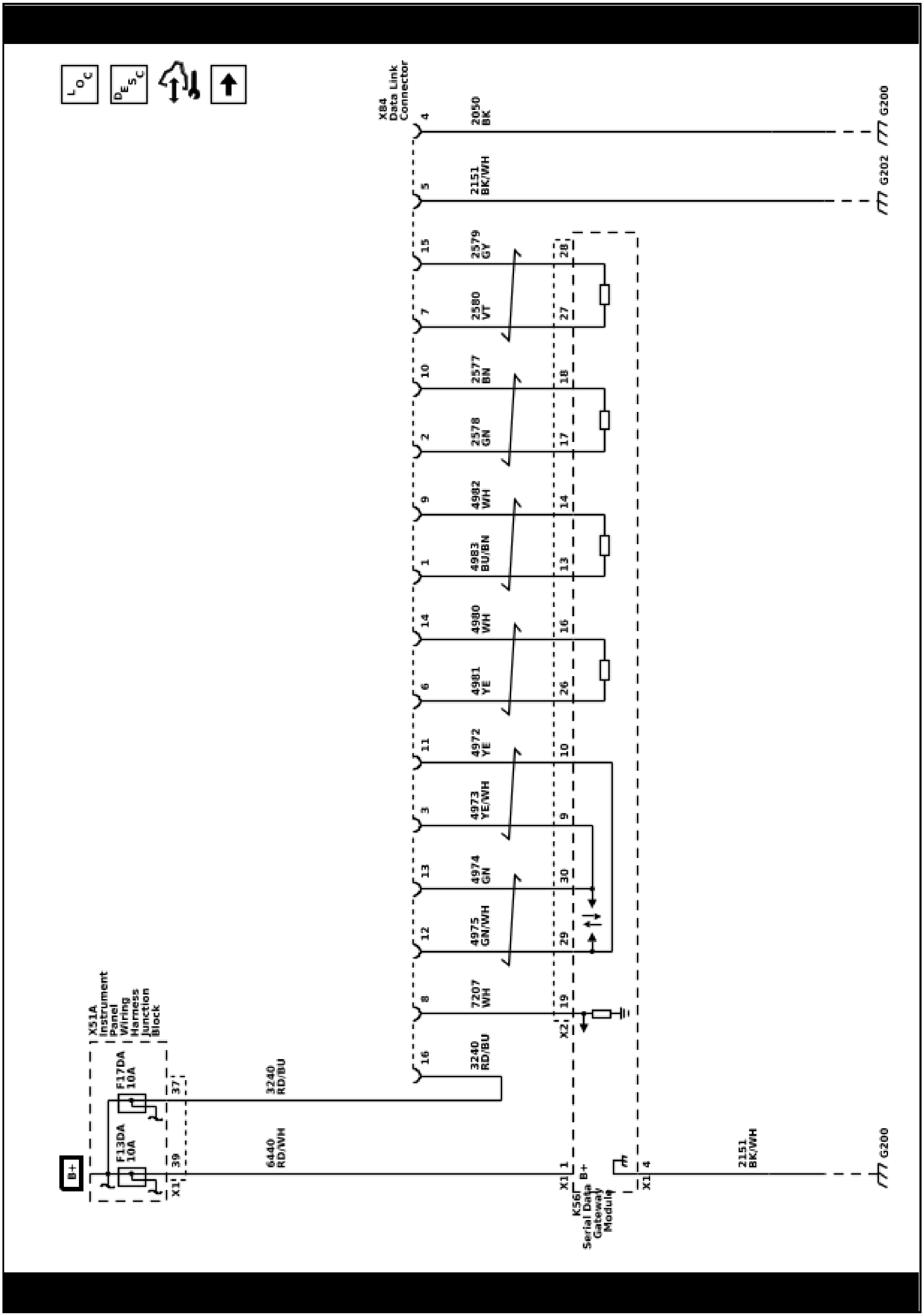
Data Communications

Schematic and Routing Diagrams

Data Communication Schematics (Data Link Connector and Serial Data Gateway Module Power and Ground)


6331793
X84
Data Link
Connector
4
2050
BK
G200
5
2151
BK/WH
G202
15
2579
GY
7
2580
VT
28
27
10
2577
BN
2
2578
GN
18
17
9
4982
WH
1
4983
BU/BN
14
13
14
4980
WH
6
4981
YE
16
26
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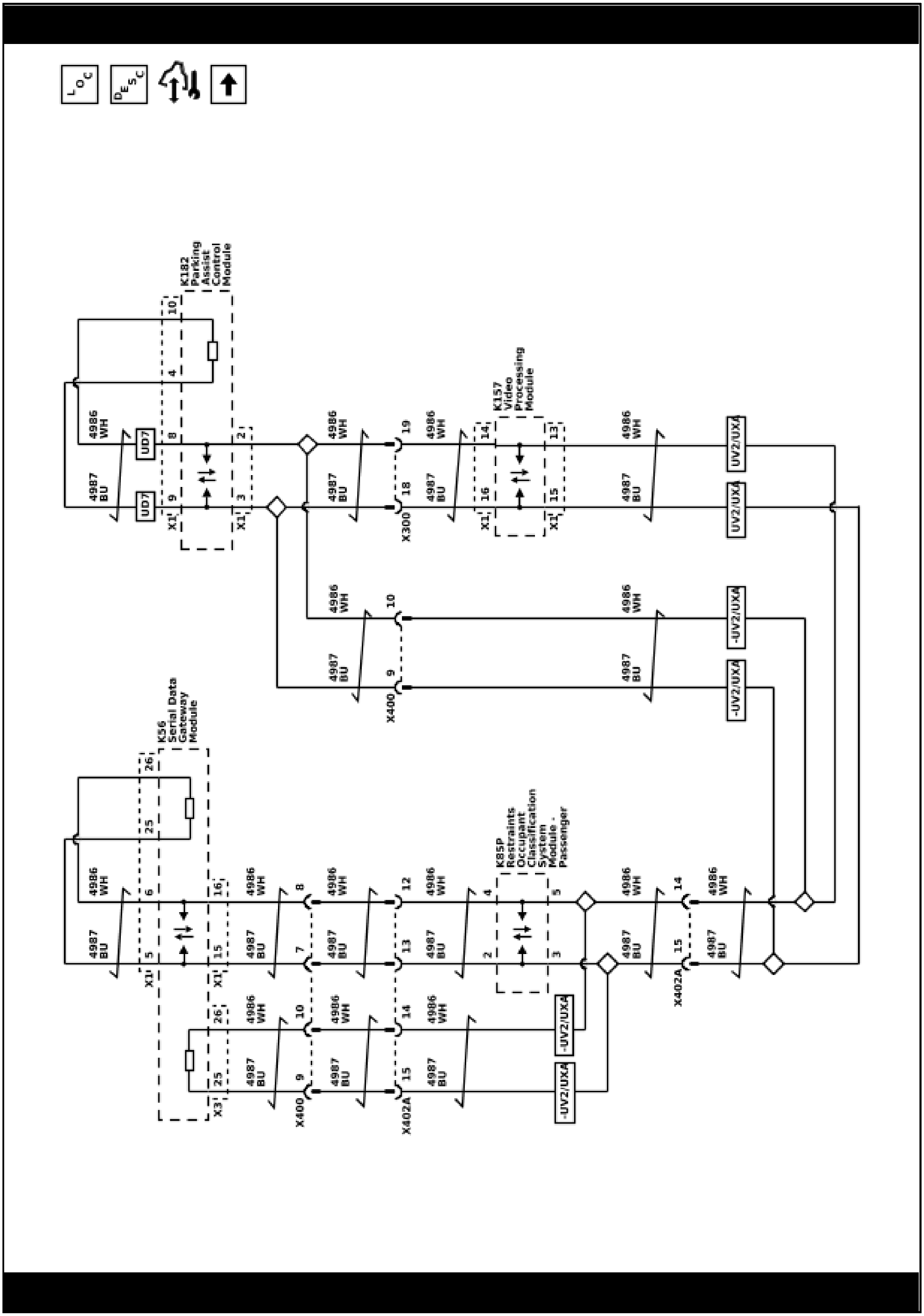
4972
YE
3
4973
YE/WH
10
9
13
4974
GN
12
4975
GN/WH
30
29
8
7207
WH
19
X2
16
3240
RD/BU
X51A
Instrument
Panel
Wiring
Harness
Junction
Block
F17DA
10A
37
3240
RD/BU
F13DA
10A
39
X1
6440
RD/WH
B+
X1
1
B+
K56
Serial Data
Gateway
Module
X1
4
2151
BK/WH
G200

Data Communication Schematics (CAN 1)


6331794
K182 Parking Assist Control Module
K157 Video Processing Module
K56 Serial Data Gateway Module
K85P Restraints Occupant Classification System Module - Passenger
4986 WH
4987 BU
UD7
X1
X3
X300
X400
X402A
UV2/UXA
-UV2/UXA
1
2
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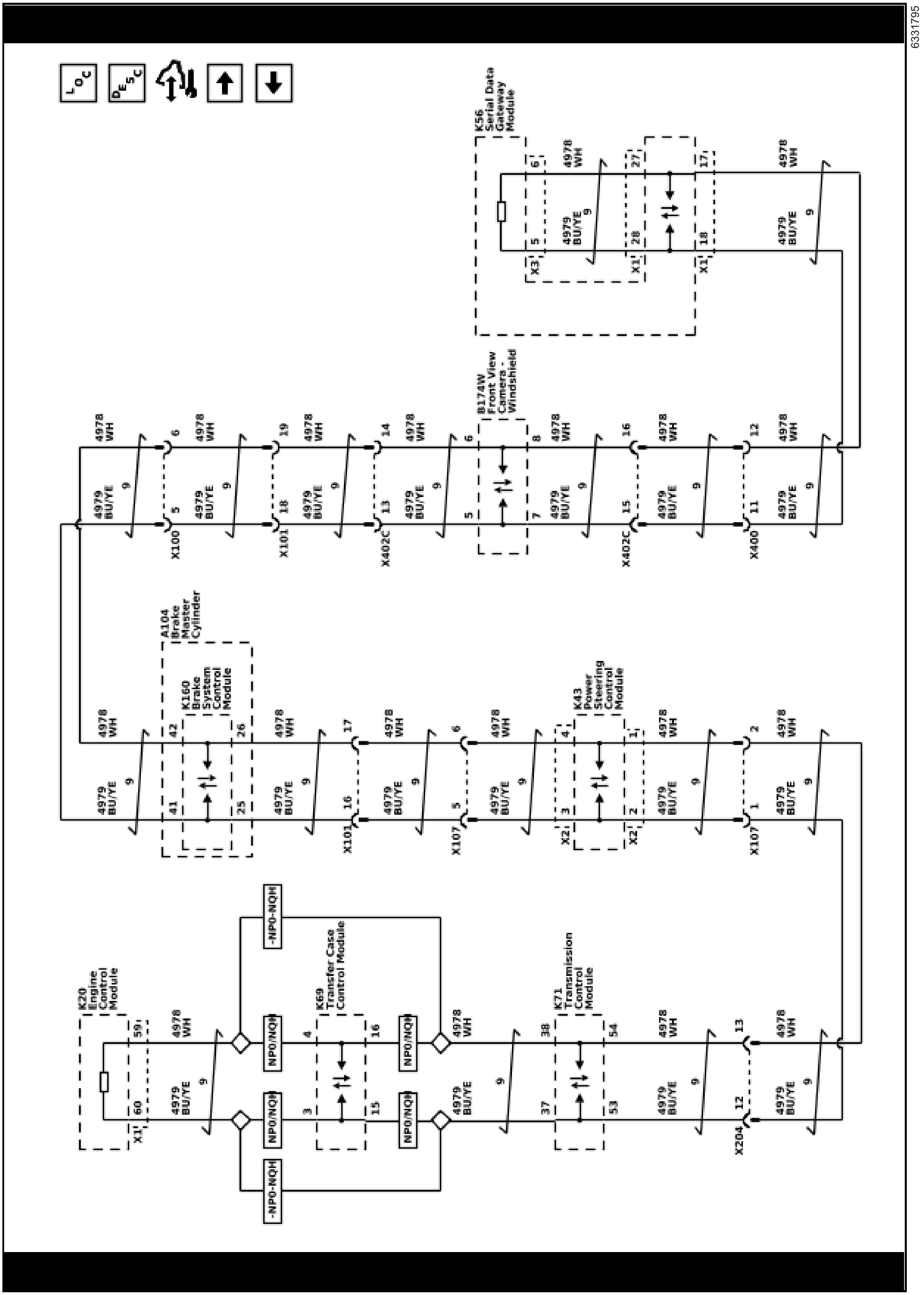
26

Data Communication Schematics (CAN 2)


6331795
K20 Engine Control Module
X1
59
60
4978 WH
4979 BU/YE
9
NP0/NQH
-NP0-NQH
K69 Transfer Case Control Module
3
4
15
16
K71 Transmission Control Module
37
38
53
54
X204
12
13
A104 Brake Master Cylinder
K160 Brake System Control Module
41
42
25
26
X101
16
17
X107
5
6
K43 Power Steering Control Module
X2
3
4
2
1
X107
1
2
X100
5
6
X101
18
19
X402C
13
14
B174W Front View Camera - Windshield
5
6
7
8
X402C
15
16
X400
11
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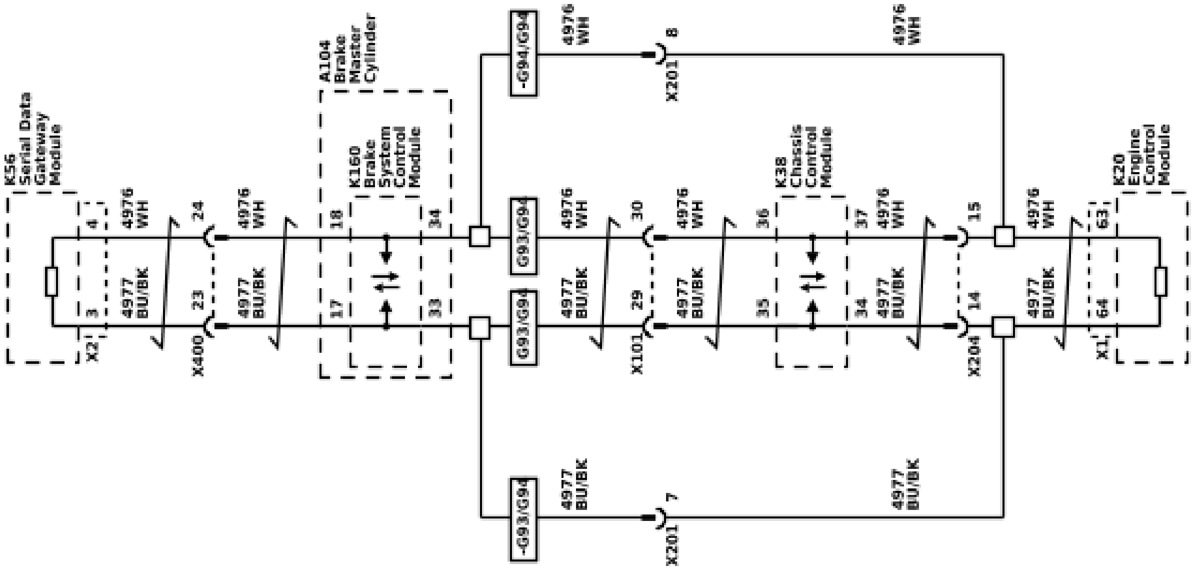
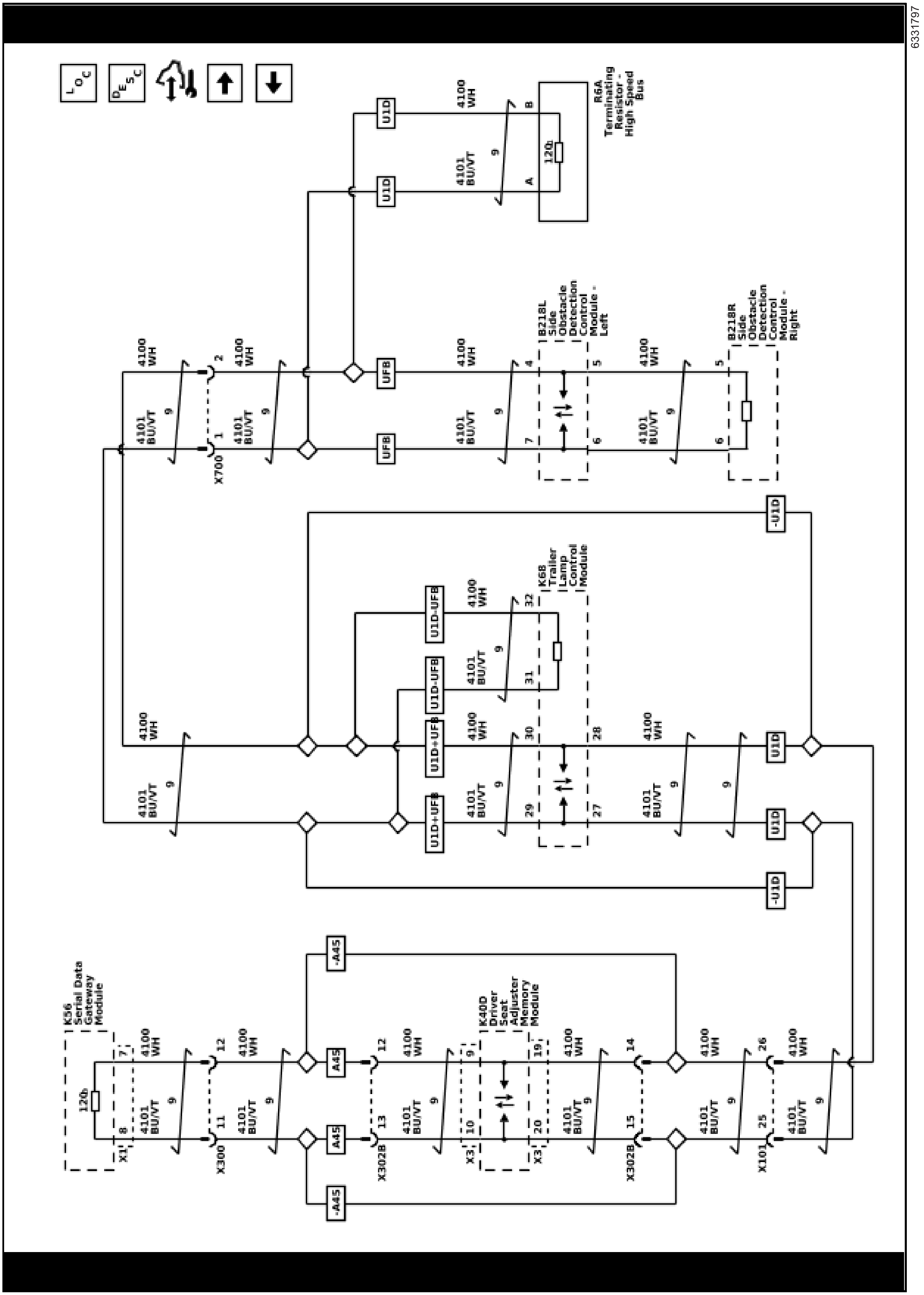
K56 Serial Data Gateway Module
X3
5
6
X1
28
27
X1
18
17

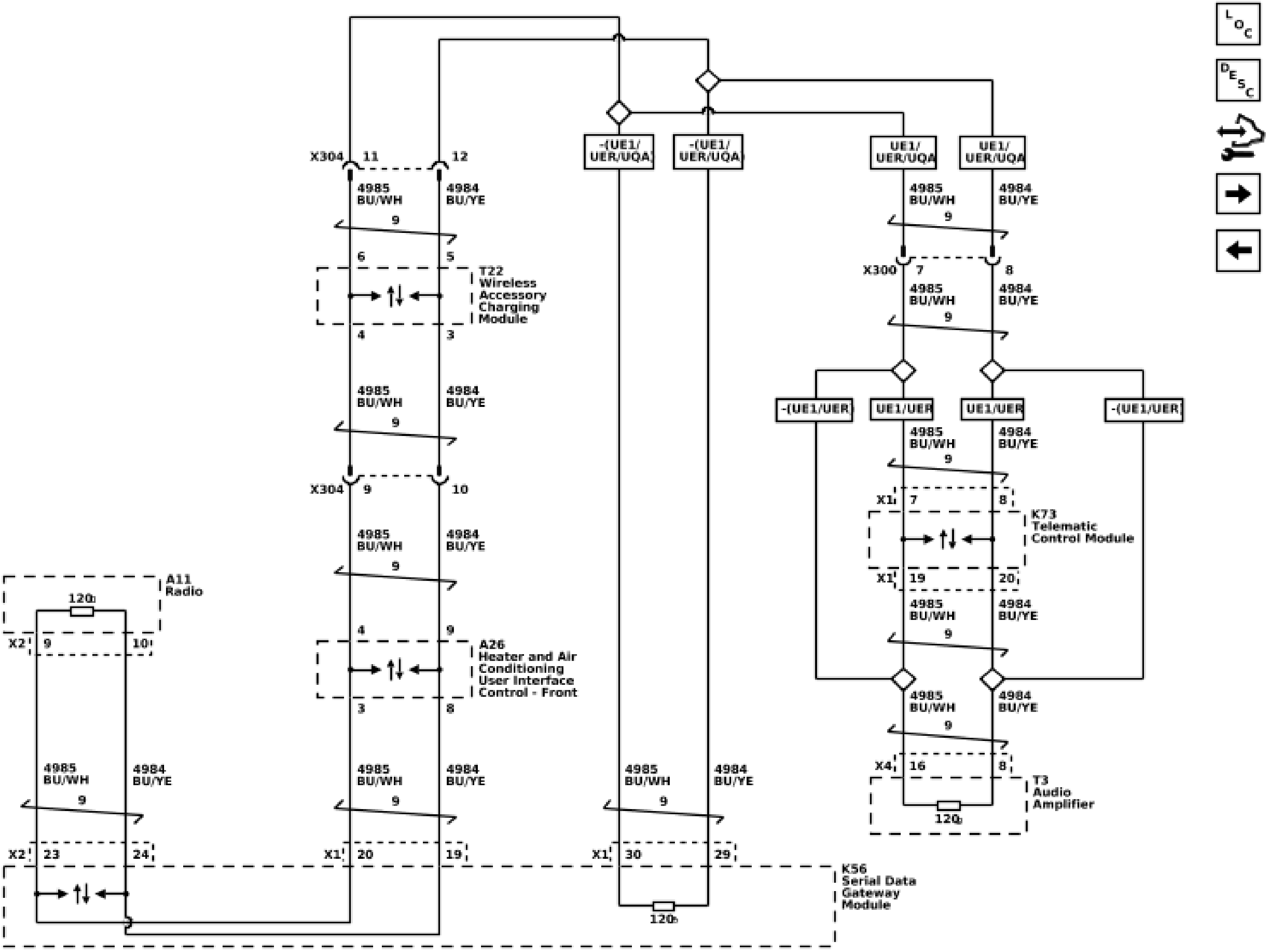
Data Communication Schematics (CAN 3)


6331796
K56
Serial Data
Gateway
Module
X2
3
4
4976
WH
4977
BU/BK
X400
23
24
4976
WH
4977
BU/BK
A104
Brake
Master
Cylinder
K160
Brake
System
Control
Module
17
18
33
34
-G94/G94
G93/G94
G93/G94
-G93/G94
4976
WH
4977
BU/BK
X201
8
X201
7
X101
29
30
4976
WH
4977
BU/BK
K38
Chassis
Control
Module
35
36
34
37
4976
WH
4977
BU/BK
X204
14
15
4976
WH
4977
BU/BK
K20
Engine
Control
Module
X1
63
64

Data Communication Schematics (CAN 4)

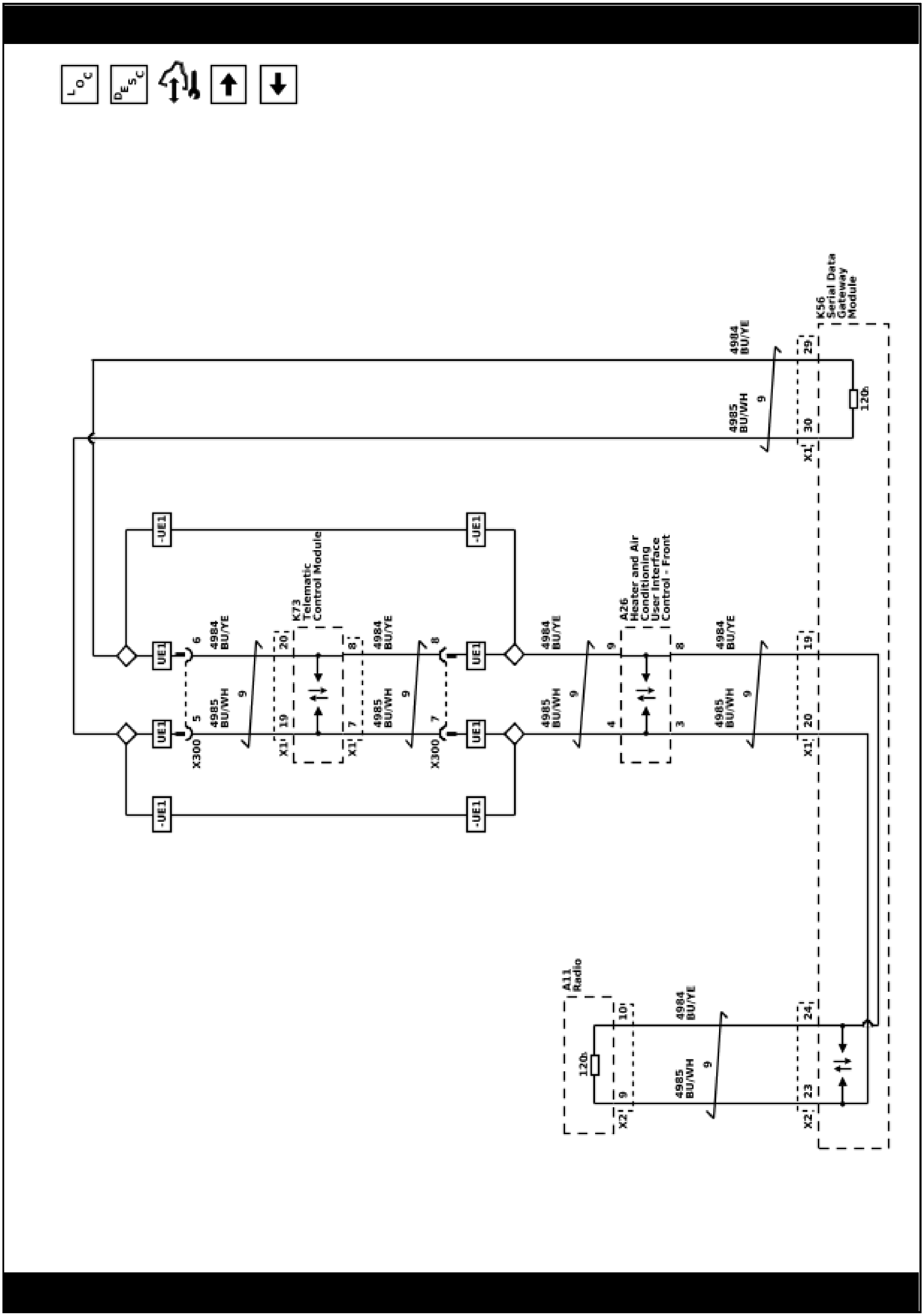

6331797
LOC
DESC
K56 Serial Data Gateway Module
120Ω
X1
8
7
4101 BU/VT
4100 WH
9
X300
11
12
A45
-A45
X302B
13
12
X3
10
9
K40D Driver Seat Adjuster Memory Module
X3
20
19
X302B
15
14
X101
25
26
U1D+UFB
U1D-UFB
K68 Trailer Lamp Control Module
29
30
31
32
27
28
U1D
-U1D
X700
1
2
UFB
B218L Side Obstacle Detection Control Module - Left
7
4
6
5
B218R Side Obstacle Detection Control Module - Right
6
5
A
B
120Ω
R6A Terminating Resistor - High Speed Bus

Data Communication Schematics (CAN 5 (K4C / UQA))

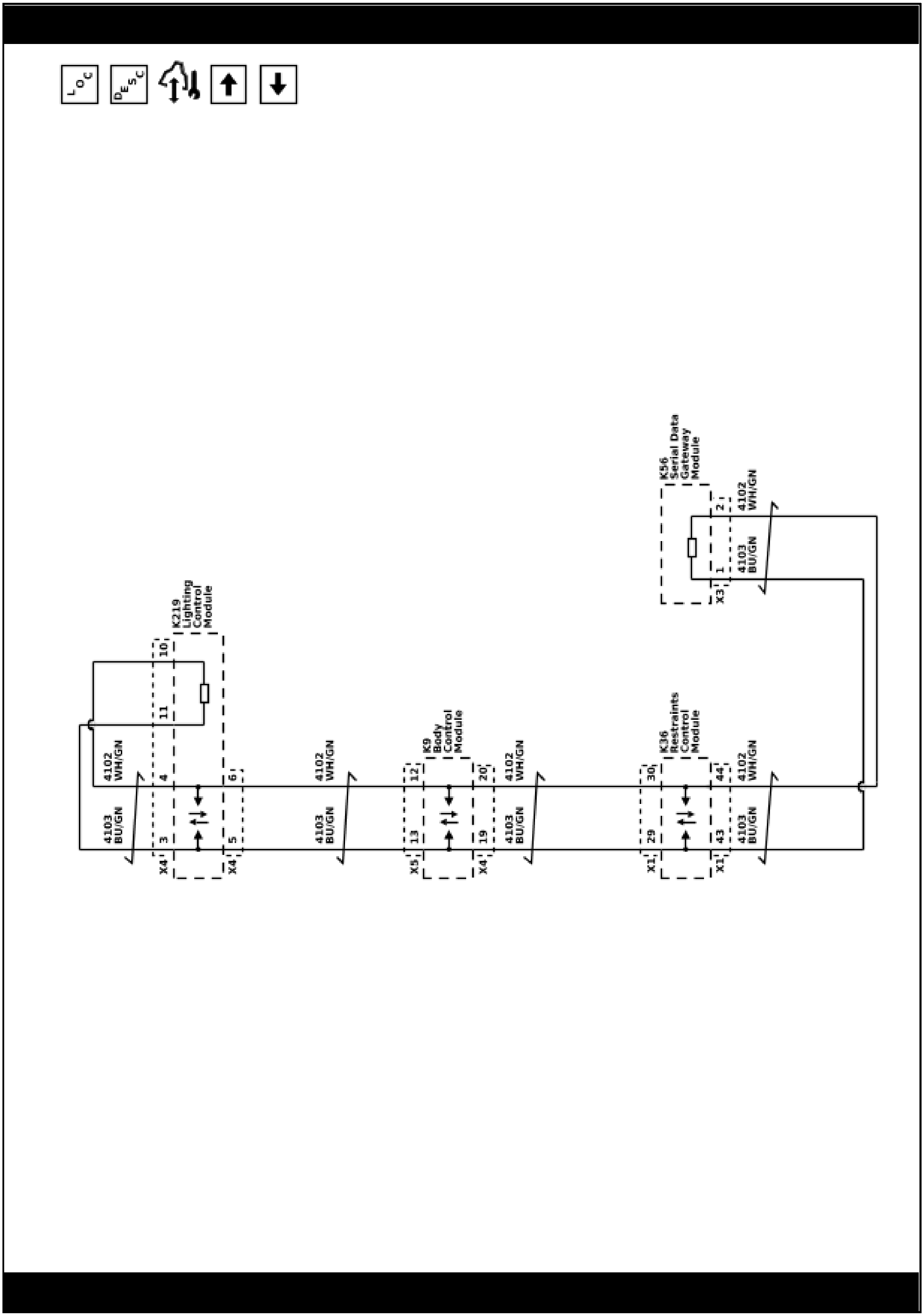

X304
11
12
4985
BU/WH
4984
BU/YE
9
6
5
T22
Wireless
Accessory
Charging
Module
4
3
X304
9
10
4
9
A26
Heater and Air
Conditioning
User Interface
Control - Front
3
8
A11
Radio
120Ω
X2
9
10
23
24
X1
20
19
30
29
120Ω
K56
Serial Data
Gateway
Module
-(UE1/
UER/UQA)
UE1/
UER/UQA
X300
7
8
-(UE1/UER)
UE1/UER
X1
7
8
K73
Telematic
Control Module
19
20
X4
16
8
T3
Audio
Amplifier
120Ω

6331798

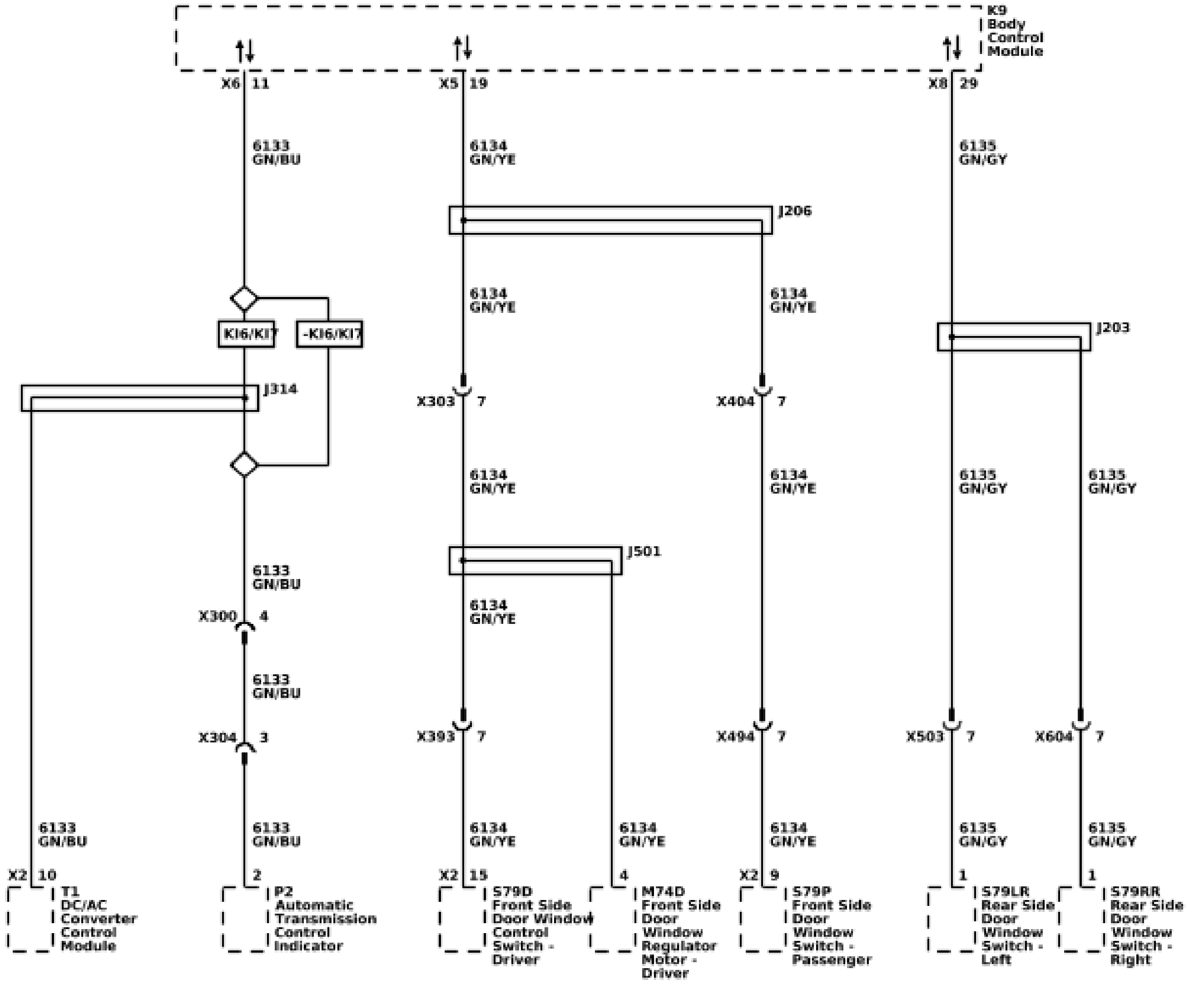
Data Communication Schematics (CAN 5 (- (K4C / UQA)))


6331799
K56
Serial Data
Gateway
Module
4984
BU/YE
4985
BU/WH
9
X1
29
30
120Ω
-UE1
UE1
X300
6
5
K73
Telematic
Control Module
20
19
8
7
A26
Heater and Air
Conditioning
User Interface
Control - Front
9
4
3
19
20
A11
Radio
10
9
X2
24
23
120Ω

Data Communication Schematics (CAN 9)

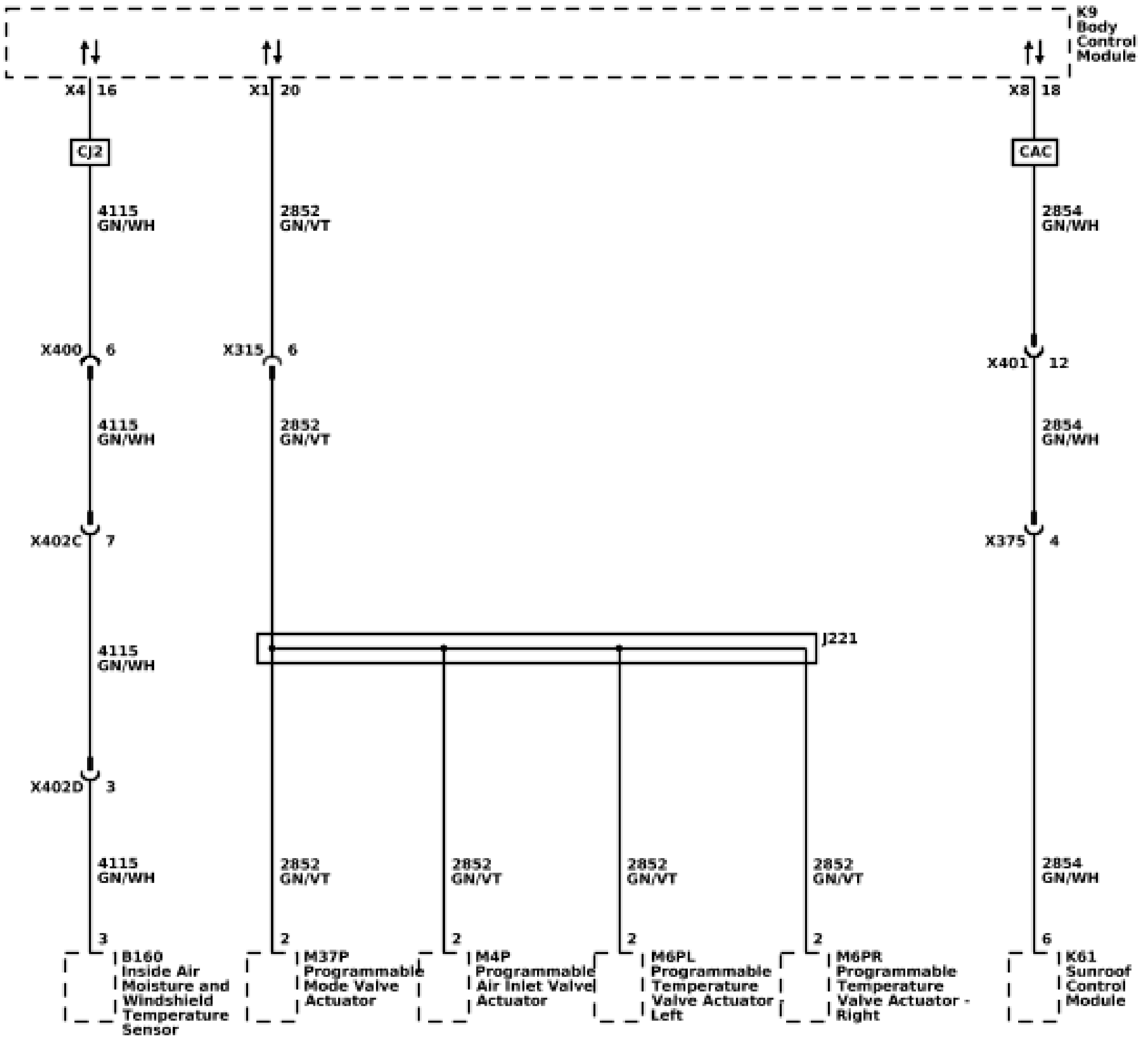

6331800
K219
Lighting
Control
Module
K9
Body
Control
Module
K36
Restraints
Control
Module
K56
Serial Data
Gateway
Module
4102
WH/GN
4103
BU/GN
X4
X5
X1
X3
3
4
5
6
10
11
12
13
19
20
29
30
43
44
1
2

Data Communication Schematics (Body Control Module Local Interconnect Network LIN Busses 2, 3, and 4)


K9
Body
Control
Module
X6 11
X5 19
X8 29
6133
GN/BU
6134
GN/YE
6135
GN/GY
J206
J203
KI6/KI7
-KI6/KI7
J314
J501
X303 7
X404 7
X300 4
X304 3
X393 7
X494 7
X503 7
X604 7
X2 10
T1
DC/AC
Converter
Control
Module
2
P2
Automatic
Transmission
Control
Indicator
X2 15
S79D
Front Side
Door Window
Control
Switch -
Driver
4
M74D
Front Side
Door
Window
Regulator
Motor -
Driver
X2 9
S79P
Front Side
Door
Window
Switch -
Passenger
1
S79LR
Rear Side
Door
Window
Switch -
Left
1
S79RR
Rear Side
Door
Window
Switch -
Right

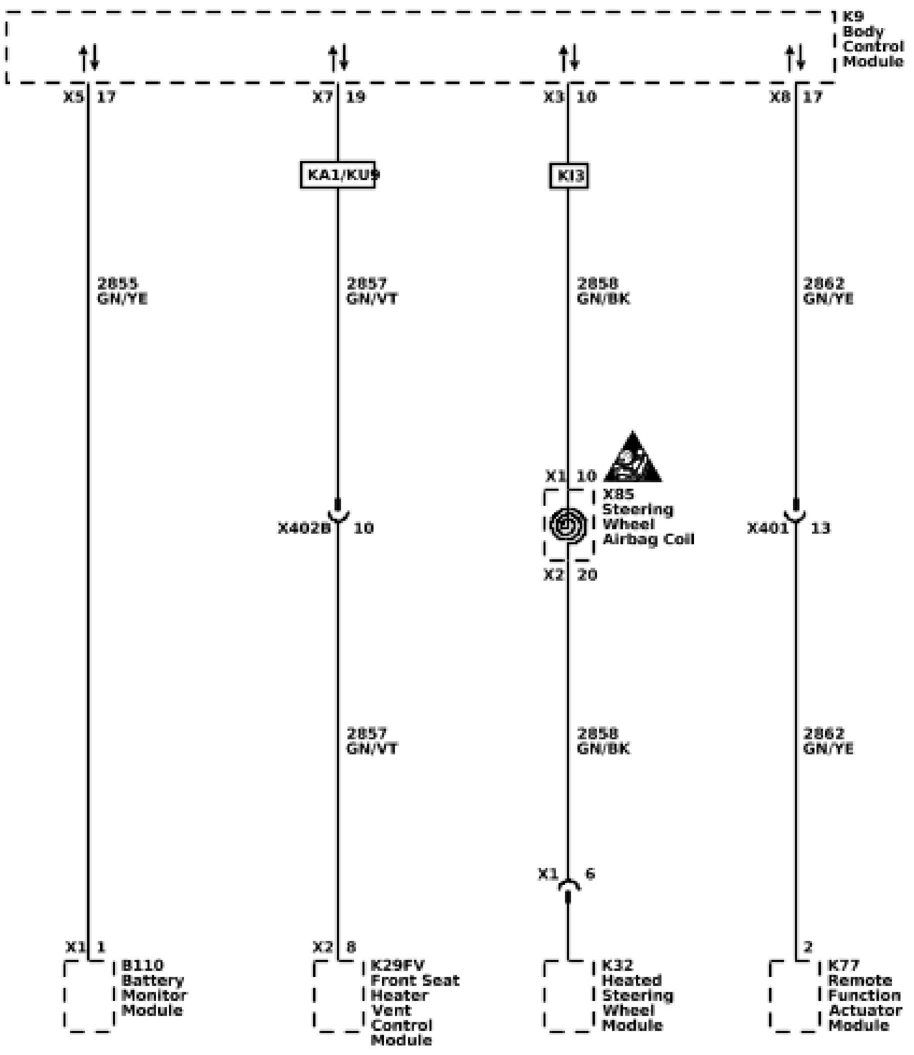
6331801

Data Communication Schematics (Body Control Module Local Interconnect Network LIN Busses 5, 6, and 8)


K9
Body
Control
Module
X4 16
X1 20
X8 18
CJ2
CAC
4115
GN/WH
2852
GN/VT
2854
GN/WH
X400 6
X315 6
X401 12
X402C 7
X375 4
J221
X402D 3
3
2
2
2
2
6
B160
Inside Air
Moisture and
Windshield
Temperature
Sensor
M37P
Programmable
Mode Valve
Actuator
M4P
Programmable
Air Inlet Valve
Actuator
M6PL
Programmable
Temperature
Valve Actuator
Left
M6PR
Programmable
Temperature
Valve Actuator -
Right
K61
Sunroof
Control
Module

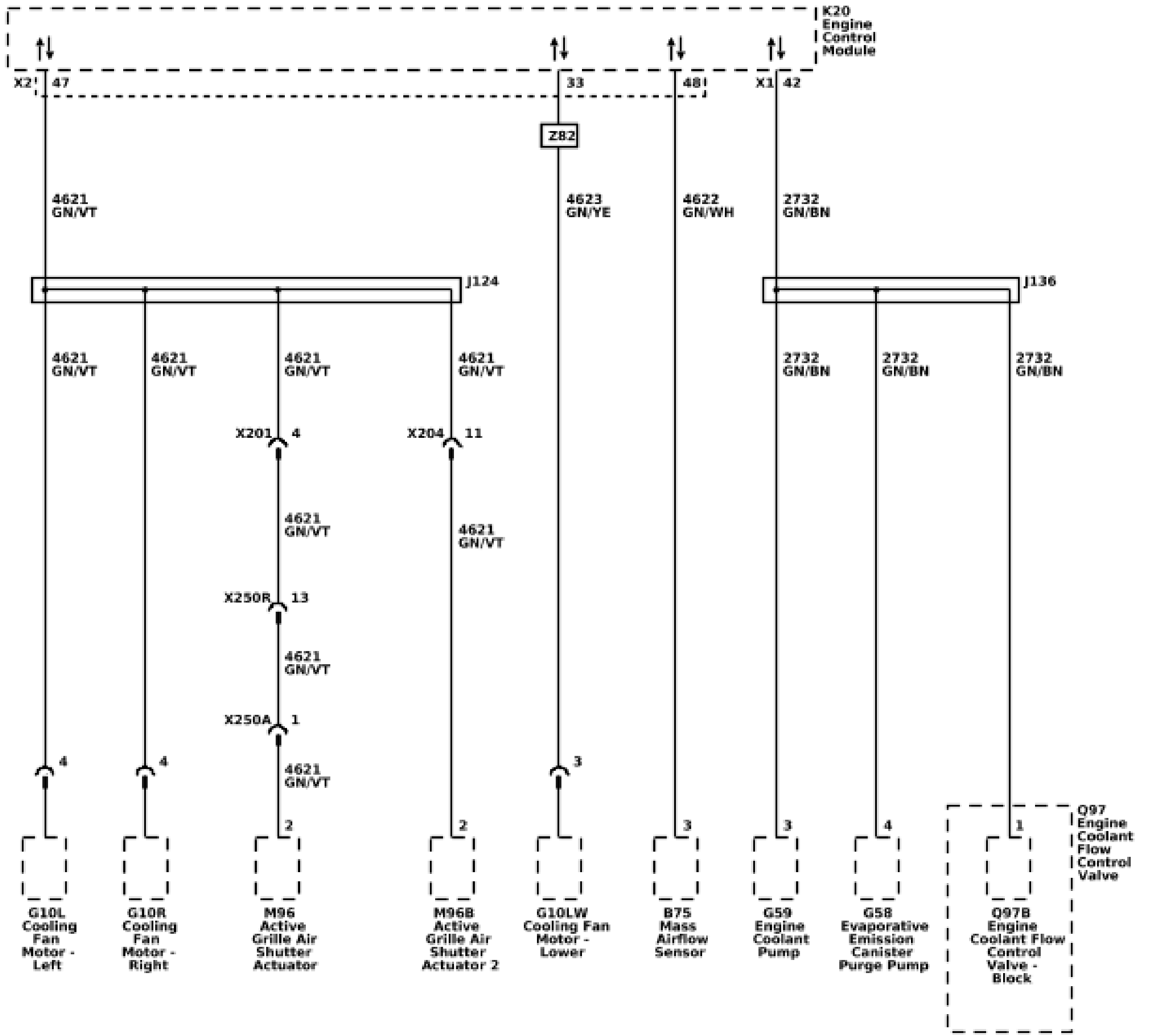
6331802

Data Communication Schematics (Body Control Module Local Interconnect Network LIN Busses 9, 11, 12, and 16)


K9 Body Control Module
X5 17
X7 19
X3 10
X8 17
KA1/KU9
KI3
2855 GN/YE
2857 GN/VT
2858 GN/BK
2862 GN/YE
X1 10
X85 Steering Wheel Airbag Coil
X2 20
X402B 10
X401 13
2857 GN/VT
2858 GN/BK
2862 GN/YE
X1 6
X1 1
B110 Battery Monitor Module
X2 8
K29FV Front Seat Heater Vent Control Module
K32 Heated Steering Wheel Module
2
K77 Remote Function Actuator Module

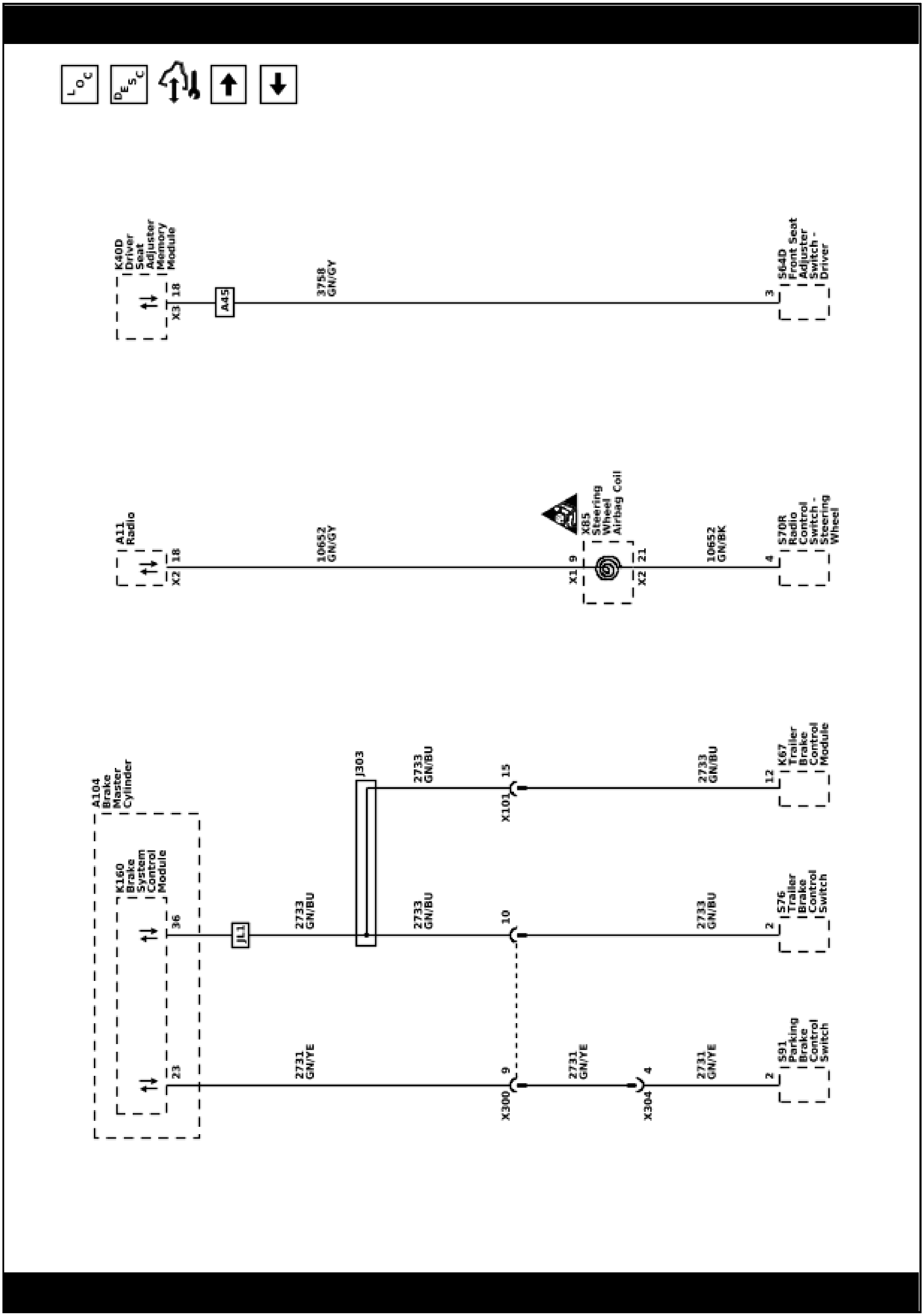
6331803

Data Communication Schematics (Engine Control Module Local Interconnect Network LIN Busses)

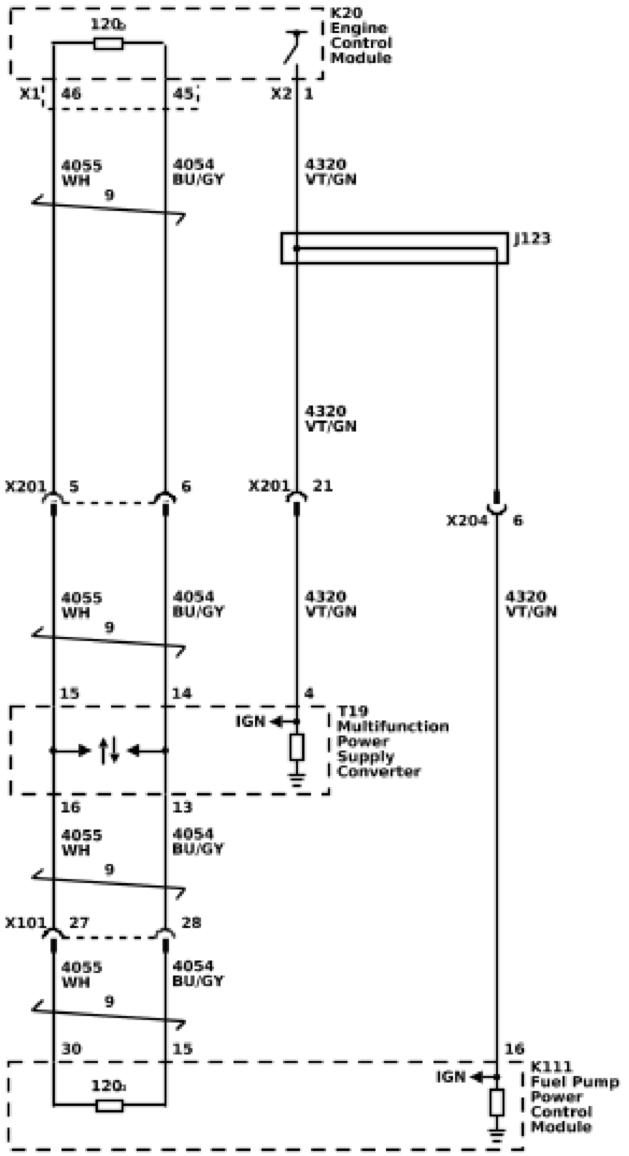

K20
Engine
Control
Module
X2 47
33
48
X1 42
Z82
4621
GN/VT
4623
GN/YE
4622
GN/WH
2732
GN/BN
J124
J136
4621
GN/VT
4621
GN/VT
4621
GN/VT
4621
GN/VT
2732
GN/BN
2732
GN/BN
2732
GN/BN
X201 4
X204 11
4621
GN/VT
4621
GN/VT
X250R 13
4621
GN/VT
X250A 1
4621
GN/VT
4
4
3
2
2
3
3
4
1
Q97
Engine
Coolant
Flow
Control
Valve
G10L
Cooling
Fan
Motor -
Left
G10R
Cooling
Fan
Motor -
Right
M96
Active
Grille Air
Shutter
Actuator
M96B
Active
Grille Air
Shutter
Actuator 2
G10LW
Cooling Fan
Motor -
Lower
B75
Mass
Airflow
Sensor
G59
Engine
Coolant
Pump
G58
Evaporative
Emission
Canister
Purge Pump
Q97B
Engine
Coolant Flow
Control
Valve -
Block

6331804

Data Communication Schematics (General Local Interconnect Network - LIN Busses)

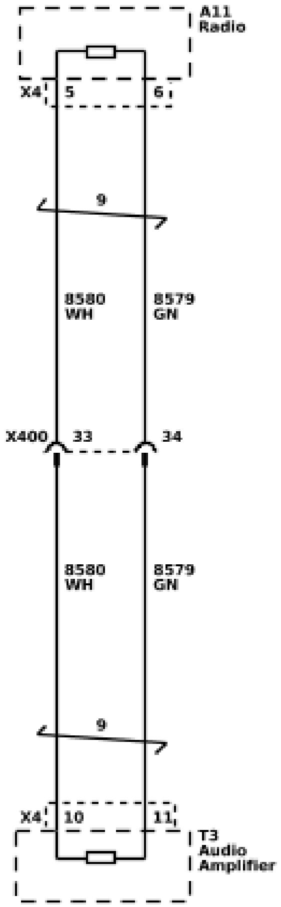

6331805
K40D Driver Seat Adjuster Memory Module
X3 18
A45
3758 GN/GY
3
S64D Front Seat Adjuster Switch - Driver
A11 Radio
X2 18
10652 GN/GY
X1 9
X85 Steering Wheel Airbag Coil
X2 21
10652 GN/BK
4
S70R Radio Control Switch - Steering Wheel
A104 Brake Master Cylinder
K160 Brake System Control Module
36
23
JL1
2733 GN/BU
J303
10
X101 15
12
K67 Trailer Brake Control Module
2
S76 Trailer Brake Control Switch
2731 GN/YE
X300 9
X304 4
2
S91 Parking Brake Control Switch

Data Communication Schematics (Powertrain and Enable CAN)


K20
Engine
Control
Module
120Ω
X1
46
45
X2
1
4055
WH
9
4054
BU/GY
4320
VT/GN
J123
X201
5
6
X201
21
X204
6
15
14
4
IGN
T19
Multifunction
Power
Supply
Converter
16
13
X101
27
28
30
15
16
K111
Fuel Pump
Power
Control
Module

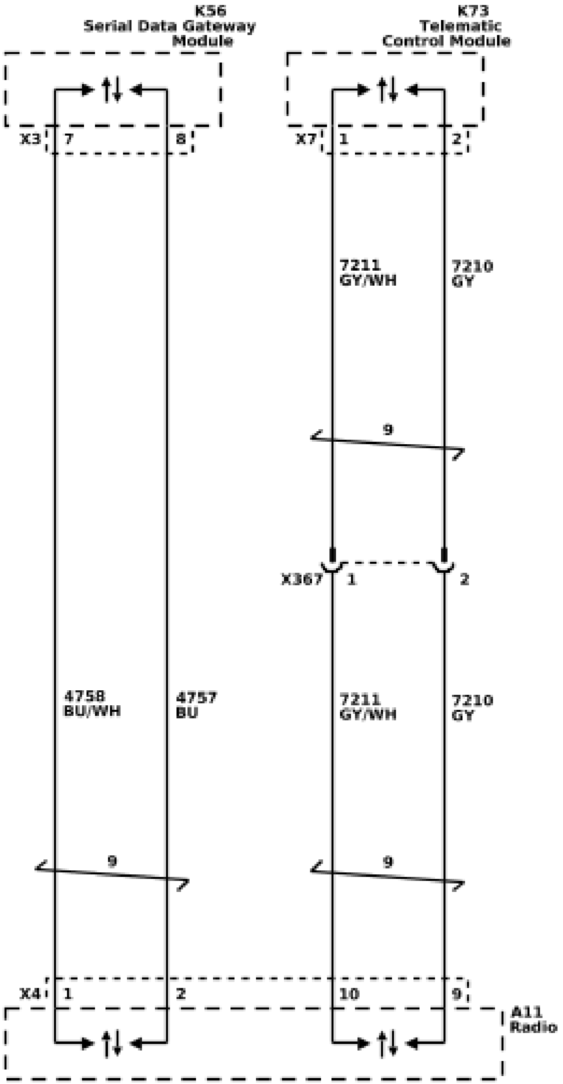
6331806

Data Communication Schematics (Automotive Audio Bus A2B Serial Data 1 (UQA))


A11
Radio
X4
5
6
9
8580
WH
8579
GN
X400
33
34
8580
WH
8579
GN
9
X4
10
11
T3
Audio
Amplifier

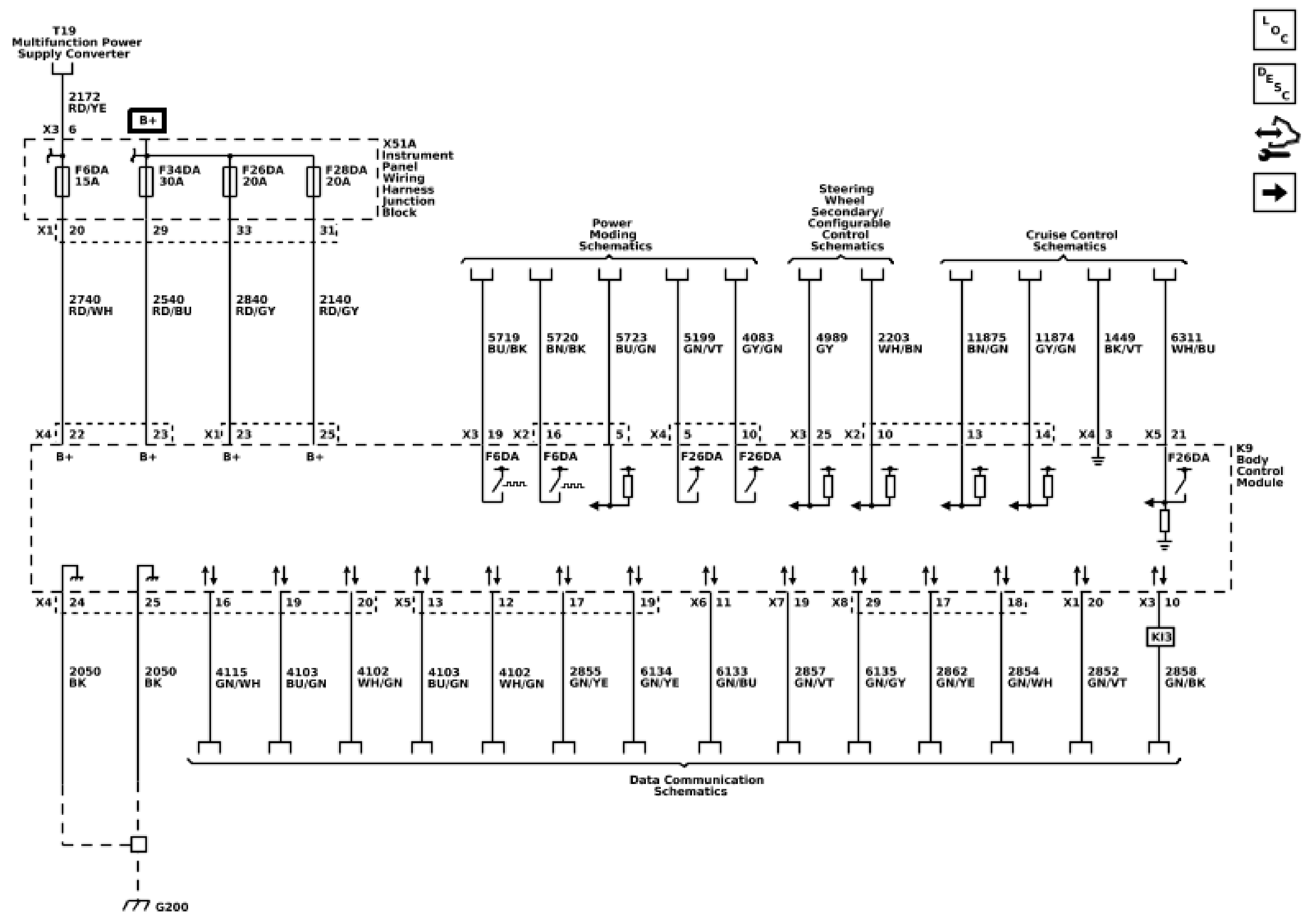
6331807

Data Communication Schematics (Ethernet Bus)


K56
Serial Data Gateway Module
K73
Telematic Control Module
X3
7
8
X7
1
2
7211
GY/WH
7210
GY
9
X367
1
2
4758
BU/WH
4757
BU
7211
GY/WH
7210
GY
9
9
X4
1
2
10
9
A11
Radio

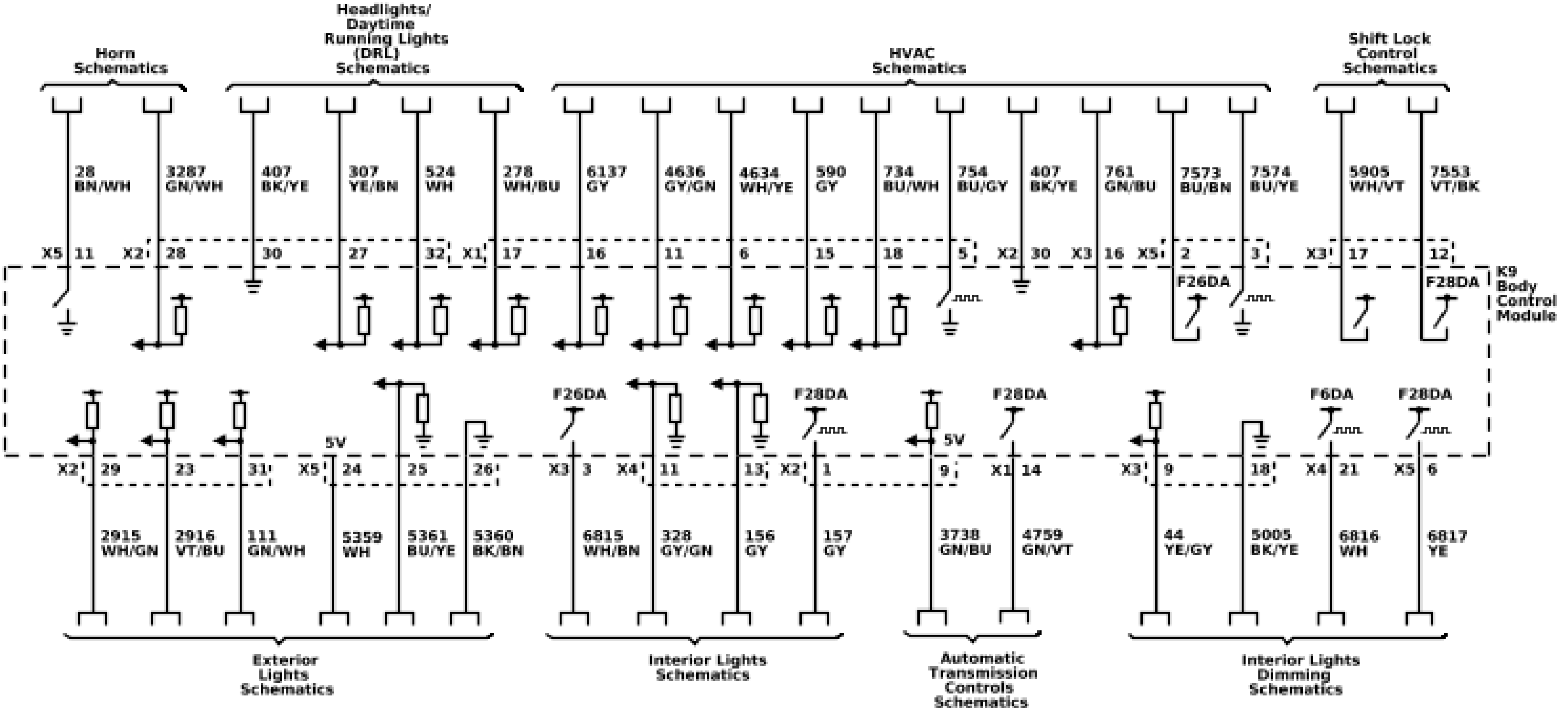
6331808

Body Control System Schematics (Power, Ground, Serial Data, and Subsystem References 1 of 3)


T19
Multifunction Power Supply Converter
2172
RD/YE
X3 6
B+
F6DA 15A
F34DA 30A
F26DA 20A
F28DA 20A
X51A Instrument Panel Wiring Harness Junction Block
X1 20
29
33
31
2740 RD/WH
2540 RD/BU
2840 RD/GY
2140 RD/GY
X4 22
23
X1 23
25
B+
B+
B+
B+
Power Moding Schematics
5719 BU/BK
5720 BN/BK
5723 BU/GN
5199 GN/VT
4083 GY/GN
X3 19
X2 16
5
X4 5
10
F6DA
F6DA
F26DA
F26DA
Steering Wheel Secondary/ Configurable Control Schematics
4989 GY
2203 WH/BN
X3 25
X2 10
Cruise Control Schematics
11875 BN/GN
11874 GY/GN
1449 BK/VT
6311 WH/BU
13
14
X4 3
X5 21
F26DA
K9 Body Control Module
X4 24
25
16
19
20
X5 13
12
17
19
X6 11
X7 19
X8 29
17
18
X1 20
X3 10
K13
2050 BK
2050 BK
4115 GN/WH
4103 BU/GN
4102 WH/GN
4103 BU/GN
4102 WH/GN
2855 GN/YE
6134 GN/YE
6133 GN/BU
2857 GN/VT
6135 GN/GY
2862 GN/YE
2854 GN/WH
2852 GN/VT
2858 GN/BK
Data Communication Schematics
G200

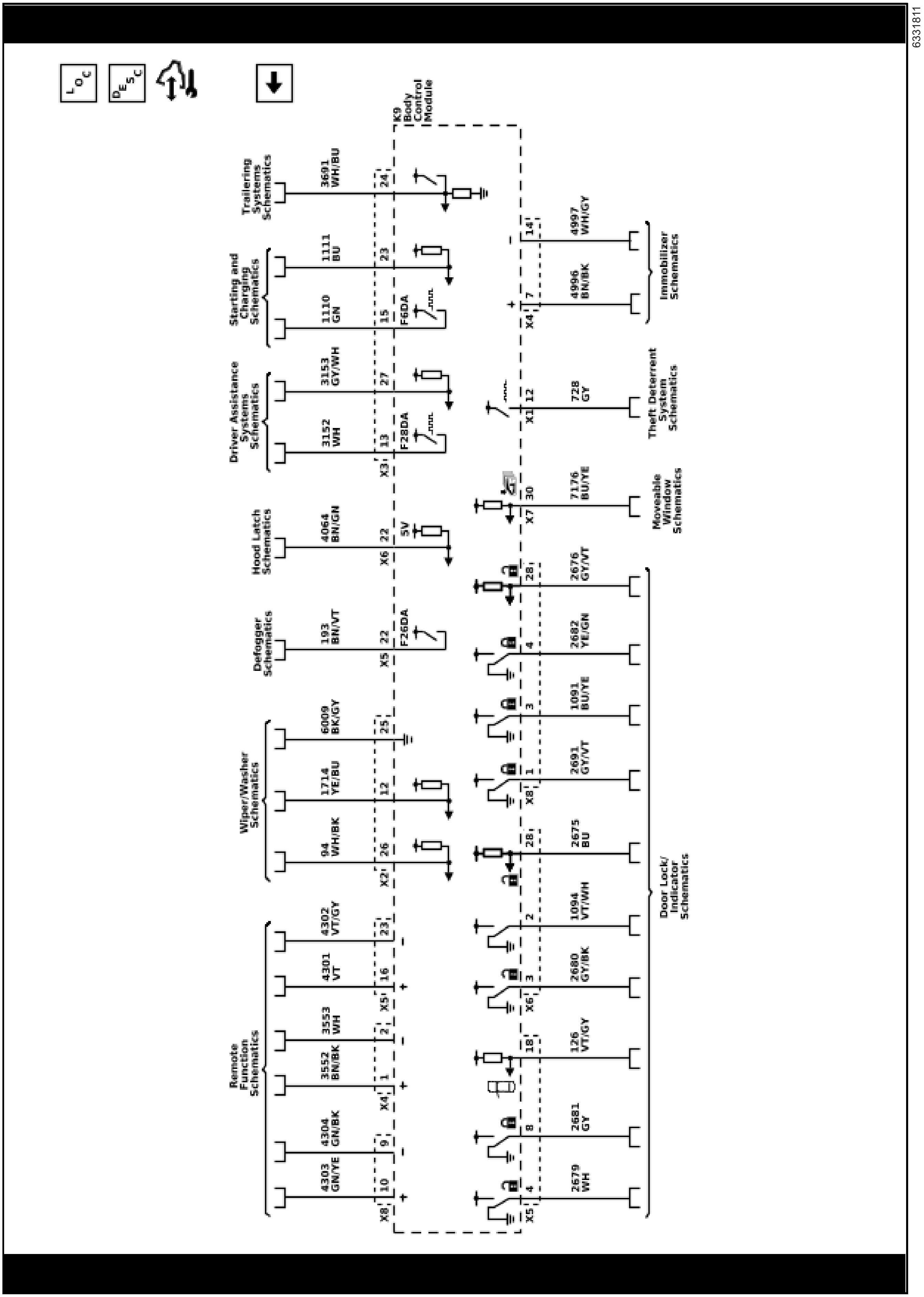
6331809

Body Control System Schematics (Subsystem References 2 of 3)


Horn Schematics
Headlights/ Daytime Running Lights (DRL) Schematics
HVAC Schematics
Shift Lock Control Schematics
28 BN/WH
3287 GN/WH
407 BK/YE
307 YE/BN
524 WH
278 WH/BU
6137 GY
4636 GY/GN
4634 WH/YE
590 GY
734 BU/WH
754 BU/GY
407 BK/YE
761 GN/BU
7573 BU/BN
7574 BU/YE
5905 WH/VT
7553 VT/BK
X5 11
X2 28
30
27
32
X1 17
16
11
6
15
18
5
X2 30
X3 16
X5 2
3
X3 17
12
F26DA
F28DA
K9 Body Control Module
F26DA
F28DA
F28DA
F6DA
F28DA
5V
5V
X2 29
23
31
X5 24
25
26
X3 3
X4 11
13
X2 1
9
X1 14
X3 9
18
X4 21
X5 6
2915 WH/GN
2916 VT/BU
111 GN/WH
5359 WH
5361 BU/YE
5360 BK/BN
6815 WH/BN
328 GY/GN
156 GY
157 GY
3738 GN/BU
4759 GN/VT
44 YE/GY
5005 BK/YE
6816 WH
6817 YE
Exterior Lights Schematics
Interior Lights Schematics
Automatic Transmission Controls Schematics
Interior Lights Dimming Schematics

6331810

Body Control System Schematics (Subsystem References 3 of 3)


6331811
K9 Body Control Module
Trailering Systems Schematics
3691 WH/BU
24
Starting and Charging Schematics
1111 BU
23
1110 GN
15
F6DA
Driver Assistance Systems Schematics
3153 GY/WH
27
3152 WH
13
X3
F28DA
Hood Latch Schematics
4064 BN/GN
22
X6
5V
Defogger Schematics
193 BN/VT
22
X5
F26DA
Wiper/Washer Schematics
6009 BK/GY
25
1714 YE/BU
12
94 WH/BK
26
X2
Remote Function Schematics
4302 VT/GY
23
4301 VT
16
X5
3553 WH
2
3552 BN/BK
1
X4
4304 GN/BK
9
4303 GN/YE
10
X8
14
4997 WH/GY
7
X4
4996 BN/BK
Immobilizer Schematics
12
X1
728 GY
Theft Deterrent System Schematics
30
X7
7176 BU/YE
Moveable Window Schematics
28
2676 GY/VT
4
2682 YE/GN
3
1091 BU/YE
1
X8
2691 GY/VT
28
2675 BU
2
1094 VT/WH
3
X6
2680 GY/BK
18
126 VT/GY
8
2681 GY
4
X5
2679 WH
Door Lock/Indicator Schematics

Description and Operation

Data Link Communications Description and Operation

Note: This is an overview of different serial data buses used by control modules to communicate with each others. Use Data Communication Schematics on page 6-4 to find out which serial data buses are configured for a specific vehicle.

Data Link Communications Overview

There are many components in a vehicle that rely on information from other sources, transmit information to other sources, or both. Serial data communication networks provide a reliable, cost effective, way for various components of the vehicle to “talk” to one another and share information.

General Motors uses a number of different communication buses to insure the timely and efficient exchange of information between control modules. When compared to each other, some of these buses are different in nature as far as speed, signal characteristics, and behavior.

On the other hand, when other buses are compared to each other they have similar characteristics and simply operate in parallel. In this case they are used to group together components which have high interaction. Examples are the Controller Area Network (CAN), private CAN, and LIN buses. This allows them to communicate with each other on a bus with reduced message congestion insuring faster and the more timely exchange of information than if all vehicle control modules were on a single bus.

The majority of information that exists within a given network generally stays local; however some information will have to be shared on other networks. Control modules designated as Gateway’s perform the function of transferring information between the various buses. A Gateway module is connected to at least 2 buses and will interact with each network according to its message strategy and transmission models.

CAN provides the capability for a receiving control module to monitor message transmissions from other control modules in order to determine if messages of interest are not being received. The primary purpose is to allow reasonable default values to be substituted for the information no longer being received. Additionally, a control module may set a Diagnostic Trouble Code (DTC) to indicate that the control module it is expecting information from is no longer communicating.

K9 Body Control Module (BCM)

The body control system consists of the K9 Body Control Module, communications, and various input and outputs. Some inputs, outputs and messages require other control modules to interact with the K9 Body Control Module. The K9 Body Control Module also has discrete input and output terminals to control the vehicle's body functions. The K9 Body Control Module is wired to CAN bus and multiple Local Interconnect Network (LIN) buses and acts as a gateway between them.

The various K9 Body Control Module input and output circuits are illustrated in the corresponding functional areas on the K9 Body Control Module electrical schematics. Refer to the Body Control System Schematics on page 6-20 for more detailed information.

K56 Serial Data Gateway Module

The K56 Serial Data Gateway Module gates messages between the CAN networks described in the Controller Area Network (CAN) Bus Description section below. The K56 Serial Data Gateway Module needs to know what CAN control modules are present on a given vehicle in order to enable/disable loss of communication DTCs and to know what CAN control modules to track for their communication status. The K56 Serial Data Gateway Module has the ability to learn the diagnostic addresses list of CAN control modules to identify what CAN control modules are equipped on the vehicle and what CAN buses they are on. If the K56 Serial Data Gateway Module is replaced, this learn/verification process will have to be done again through K56 Serial Data Gateway Module programming and setup procedure in SPS. This learn process will not cause any previously learned contents to be forgotten/overwritten. If the learn process is not done on a new K56 Serial Data Gateway Module, DTC U1977 will be set until the learn procedure is executed. If the learn is invalid due to control module internal malfunction or a K56 Serial Data Gateway Module swap, DTC U3000 42 or DTC U3002 56 will be set. If any of these DTCs sets, the K56 Serial Data Gateway Module will enable loss of communication for all CAN control modules. This will result in loss of communication DTCs being set against CAN control modules that are not equipped on the vehicle.

A fault can be localized by monitoring the normal mode messages on a CAN bus. The K56 Serial Data Gateway Module will monitor one signal per CAN control module per CAN bus to determine control module status. When a signal times out, a loss of communication event will be started.

Controller Area Network (CAN) Bus Description

The CAN buses are used where data needs to be exchanged at a high enough rate to minimize the delay between the occurrence of a change in sensor value and the reception of this information by a control device using the information to adjust vehicle system performance.

Each CAN serial data network consists of two twisted wires. One signal circuit is identified as CAN-High and the other signal circuit is identified as CAN-Low. At each end of the data bus there is a 120 Ω termination resistor between the CAN-High and CAN-Low circuits. Most CAN control modules have an internal resistance of 4.950K Ω. There may be one or two CAN control modules that have a higher internal resistance like the K60 Column Lock Module which has an internal resistance of 77.4K Ω. The internal resistance of CAN control modules causes lower terminating resistor reading when splitting the CAN network to check for faults. The more CAN control modules on the network the lower the terminating resistor will read.

The data to be transmitted over a CAN bus is represented by the voltage difference between the CAN-High signal voltage and the CAN-Low signal voltage. Data symbols (1’s and 0’s) are transmitted sequentially at the following rate:

- CAN 1 (circuits 4986 & 4987) = 500 Kbit/s
- CAN 2 (circuits 4978 & 4979) = 2 Mbit/s
- CAN 3 (circuits 4976 & 4977) = 500 Kbit/s
- CAN 4 (circuits 4100 & 4101) = 500 Kbit/s
- CAN 5 (circuits 4984 & 4985) = 500 Kbit/s
- CAN 6 (circuits 4980 & 4981) = 5 Mbit/s
- CAN 7 (circuits 4982 & 4983) = 5 Mbit/s
- CAN 8 (circuits 4104 & 4105) = 2 Mbit/s
- CAN 9 (circuits 4102 & 4103) = 2 Mbit/s

When the two wire bus is at rest the CAN-High and CAN-Low signal circuits are not being driven and this represents a logic “1”. In this state both signal circuits are at the same voltage of 2.5 V. The differential voltage is approximately 0 V.

When a logic “0” is to be transmitted, the CAN-High signal circuit is driven higher to about 3.5 V and the CAN-Low circuit is driven lower to about 1.5 V. The differential voltage becomes approximately 2.0 (+/- 0.5) V.

The CAN 1, CAN 2, CAN 3, CAN 4, CAN 5, CAN 8, and CAN 9 buses are used to communicate between the K56 Serial Data Gateway Module and other CAN control modules.

The CAN 8, and CAN 9 buses are reserved for the following systems:

- The CAN 8 bus is reserved for most control modules and sensors related to active safety system, if applicable.
- The CAN 9 bus is reserved for most control modules and sensors related to Hybrid/EV system, if applicable.

The following CAN buses are between the X84 Data Link Connector and the K56 Serial Data Gateway Module:

- The CAN 6 bus is used for CAN diagnostics and programming.
- The CAN 7 bus is used for programming by assembly plant only.
- The Private Presentation CAN 1 bus (circuits 2577 & 2578) is used by Engineering to observe data communications on CAN buses not directly accessible at the X84 Data Link Connector. It requires special security access and will not be used in a service environment.
- The Private Presentation CAN 2 bus (circuits 2579 & 2580) is used by Engineering to observe data communications on CAN buses not directly accessible at the X84 Data Link Connector. It requires special security access and will not be used in a service environment.

Private Powertrain CAN Bus Description

The Private Powertrain CAN bus (circuits 4054 & 4055) is reserved for Powertrain components. It has a transmission rate of 500 Kbit/s. Sometimes communication is required between the Private Powertrain CAN bus and another CAN bus. This is accomplished by using the K20 Engine Control Module (for gas vehicles) or K16 Battery Energy Control Module (for electric vehicles) as the Gateway module. Since the Private Powertrain CAN bus and other CAN buses operate in the same manner, the diagnostics for each are similar.

Local Interconnect Network (LIN) Bus Description

The LIN Bus consists of a single wire with a transmission rate of 10.417 Kbit/s. This bus is used to exchange information between a master control module and other smart devices which provide supporting functionality. This type of configuration does not require the capacity or speed of a CAN bus and is thus relatively simpler.

The data symbols (1’s and 0’s) to be transmitted are represented by different voltage levels on the communication bus. When the LIN Bus is at rest and is not being driven, the signal is in a high voltage state of approximately Vbatt. This represents a logic “1”. When a logic “0” is to be transmitted, the signal voltage is driven low to about ground (0.0 V).

Ethernet Bus Description

Ethernet is a data communication technology that uses a single twisted copper pair of wires at speeds of 100 Mbit/s and 1000 Mbit/s. The Ethernet system uses point-to-point communication that is connected via an Ethernet switch [Module <–> Switch <–> Module]. The Ethernet bus does not use terminating resistors.

The K56 Serial Data Gateway Module and the A11 Radio have an Ethernet switch that connects to other Ethernet modules. The K56 Serial Data Gateway Module and the A11 Radio communicate with other devices and systems in the vehicle via CAN and LIN buses. Diagnostic Trouble Codes will be read on CAN to diagnose Ethernet, LIN and system faults.

Note: Ethernet harness failures should only be repaired using an appropriate kit to perform de-pin/re-pin overlays or in cases where the wiring harness repair kits are not available, the entire harness should be replaced. No crimps or splicing should be performed on the Ethernet wiring harness.

Ethernet 1

Ethernet bus 1 consists of 2 twisted pair of wires [1 pair for Ethernet bus 1R (circuits 4972 & 4973) and 1 pair for Ethernet bus 1T (circuits 4974 & 4975)]. It is connected between X84 Data Link Connector (DLC) and K56 Serial Data Gateway Module. This bus is used for diagnostics and service programming of control modules using Ethernet instead of CAN. The K56 Serial Data Gateway Module will convert Ethernet serial data to CAN as necessary, and vice versa. There is an Ethernet enable circuit (circuit 7207) which can be used to wake up the K56 Serial Data Gateway Module for Ethernet diagnostic and programming.

Ethernet 2

Ethernet bus 2 (circuits 4757 & 4758) is for connection between the A11 Radio and the K56 Serial Data Gateway Module.

Ethernet 3

Ethernet bus 3 (circuits 7208 & 7209) is for connection between the K56 Serial Data Gateway Module and K179 Automated Driving Mapping Module.

Ethernet 4

Ethernet bus 4 (circuits 7210 & 7211) is for connection between the following control modules:

- K56 Serial Data Gateway Module and K73 Communication Interface Module for vehicles equipped with IOR radio.
- A11 Radio and K73 Communication Interface Module for vehicles equipped with other radios.

Ethernet 5

Ethernet bus 5 (circuits 7212 & 7213) is for connection between the A11 Radio and P22F Video Display - Right Front Seat Back.

Ethernet 6

Ethernet bus 6 (circuits 7214 & 7215) is for connection between the A11 Radio and T3 Audio Amplifier.

Ethernet 7

Ethernet bus 7 (circuits 7216 & 7217) is for connection between the K56 Serial Data Gateway Module and P16 Instrument Panel Cluster Control Module or K190 Off-Board Charger Control Module.

Ethernet 11

Ethernet bus 11 (circuits 7224 & 7225) is for connection between the K124 Image Processing Module and K179 Automated Driving Mapping Module.

Ethernet 14

Ethernet bus 14 (circuits 7230 & 7231) is for connection between the A11 Radio and P29 Head-Up Display.

Ethernet 15

Ethernet bus 15 (circuits 7232 & 7233) is for connection between the K56 Serial Data Gateway Module, K161 Vehicle Performance Data Recorder, and P22F Video Display - Passenger Seat Back.

X84 Data Link Connector (DLC)

The X84 Data Link Connector is a standardized 16-cavity connector. Connector design and location is dictated by an industry wide standard, and is required to provide the following:

- Terminal 1: CAN Bus 7 Serial Data [+]
- Terminal 2: Private Presentation CAN Bus 1 Serial Data [+]
- Terminal 3: Ethernet Bus 1R [+]
- Terminal 4: Scan tool power ground
- Terminal 5: Common signal ground
- Terminal 6: CAN Bus 6 Serial Data [+]
- Terminal 7: Private Presentation CAN Bus 2 Serial Data [+]
- Terminal 8: Ethernet Bus 1 Enable Signal
- Terminal 9: CAN Bus 7 Serial Data [-]
- Terminal 10: Private Presentation CAN Bus 1 Serial Data [-]
- Terminal 11: Ethernet Bus 1R [-]
- Terminal 12: Ethernet Bus 1T [+]
- Terminal 13: Ethernet Bus 1T [-]
- Terminal 14: CAN Bus 6 Serial Data [-]
- Terminal 15: Private Presentation CAN Bus 2 Serial Data [-]
- Terminal 16: Scan tool power, B+

Serial Data Reference

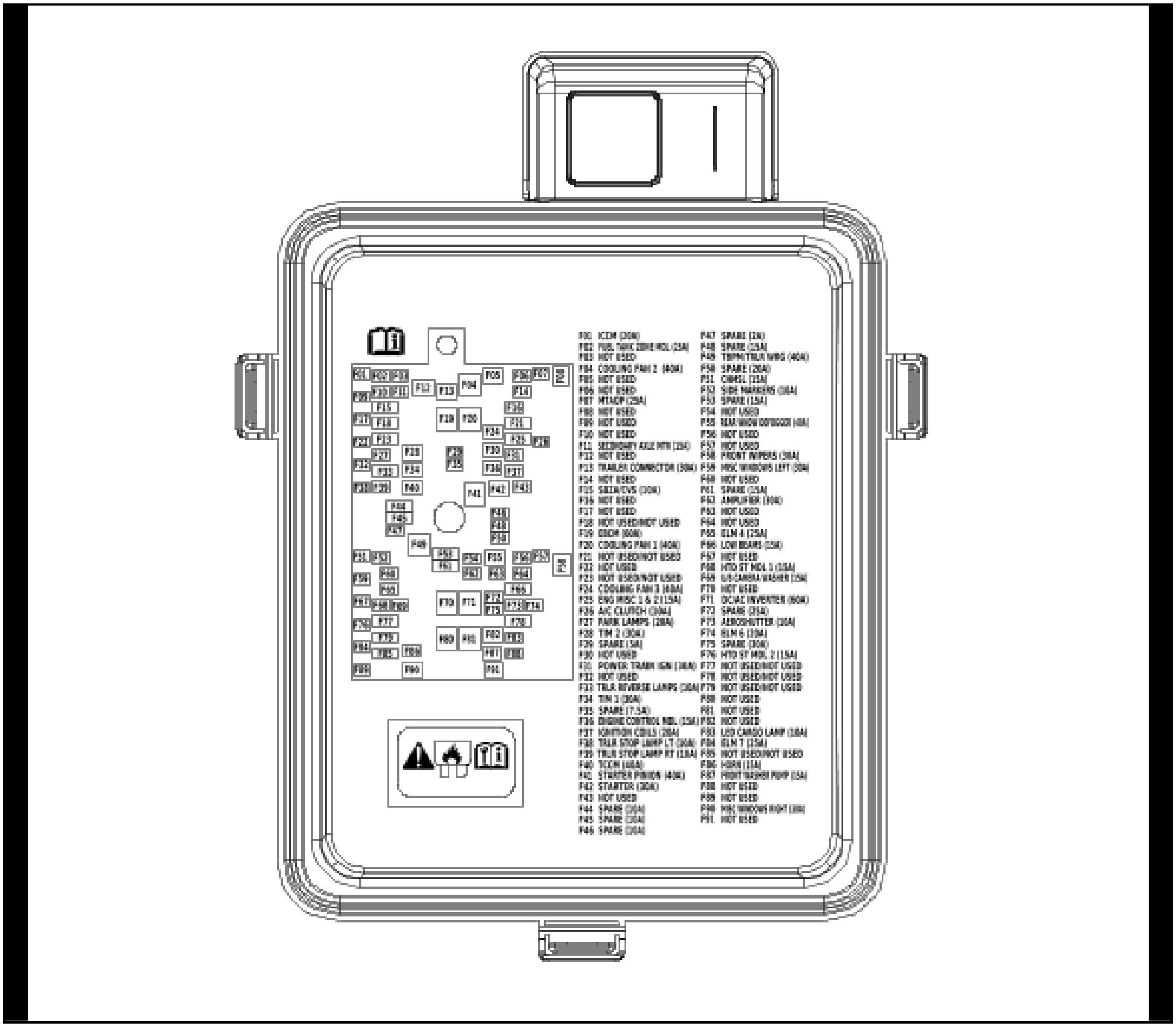
The scan tool communicates over the various buses on the vehicle. When a scan tool is installed on a vehicle, the scan tool will try to communicate with every control module that could be optioned into the vehicle. If an option is not installed on the vehicle, the scan tool will display No Communication for that optional control module. In order to avert misdiagnoses of No Communication with a specific control module, refer to Data Link References for a list of control modules and the buses they communicate with. Use schematics and specific vehicle build RPO codes to determine optional control modules.

Electrical Component and Inline Harness Connector End Views

Component Locator

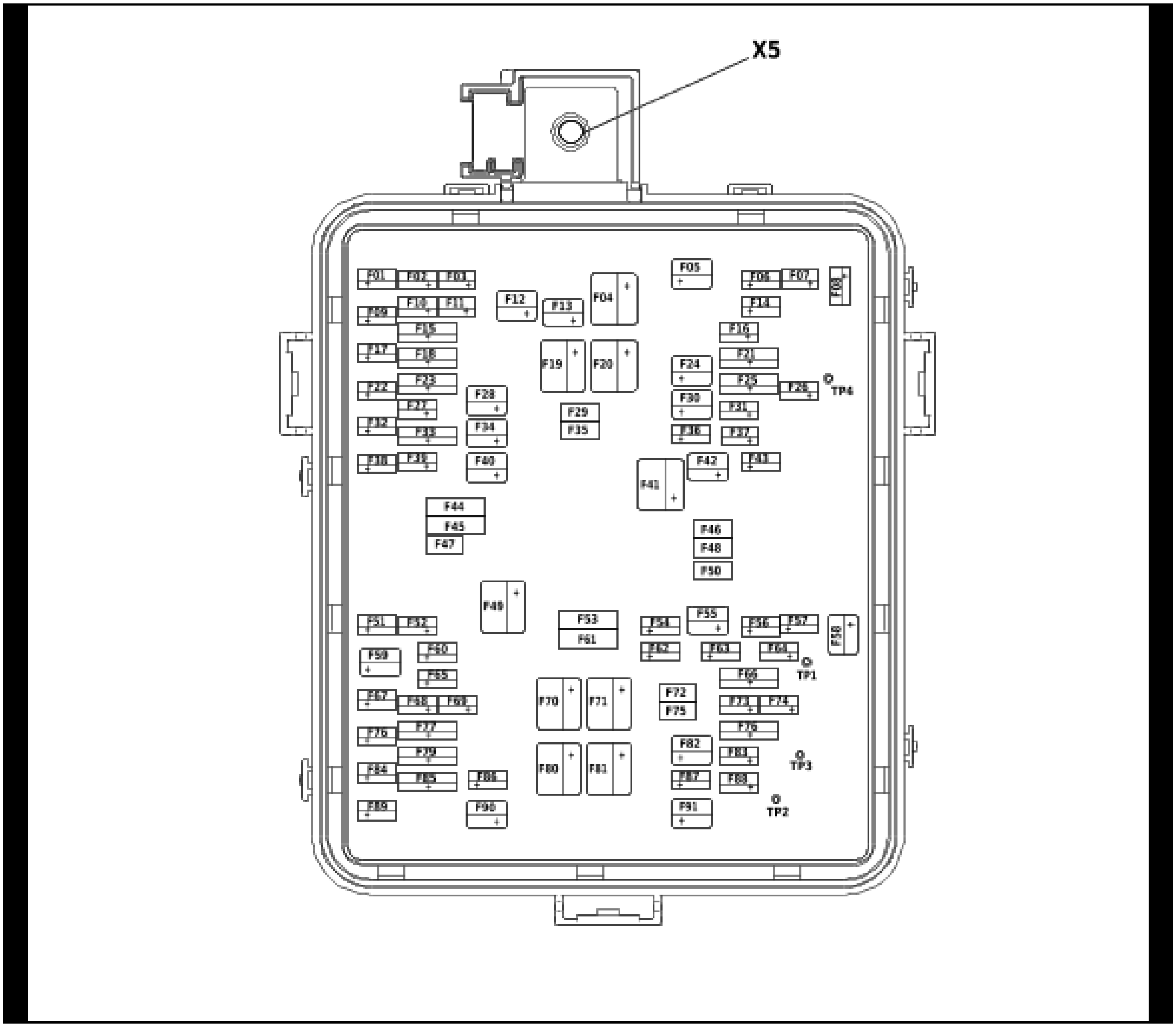
Electrical Center Identification Views

X50A Engine Wiring Harness Junction Block Label


F01 ICCM (30A)
F02 FUEL TANK ZONE MDL (25A)
F03 NOT USED
F04 COOLING FAN 2 (40A)
F05 NOT USED
F06 NOT USED
F07 MTAOP (25A)
F08 NOT USED
F09 NOT USED
F10 NOT USED
F11 SECONDARY AXLE MTR (15A)
F12 NOT USED
F13 TRAILER CONNECTOR (30A)
F14 NOT USED
F15 SBEM/CVS (30A)
F16 NOT USED
F17 NOT USED
F18 NOT USED/NOT USED
F19 EBCM (60A)
F20 COOLING FAN 1 (40A)
F21 NOT USED/NOT USED
F22 NOT USED
F23 NOT USED/NOT USED
F24 COOLING FAN 3 (40A)
F25 ENG MISC 1 & 2 (15A)
F26 A/C CLUTCH (10A)
F27 PARK LAMPS (20A)
F28 TIM 2 (30A)
F29 SPARE (5A)
F30 NOT USED
F31 POWER TRAIN IGN (20A)
F32 NOT USED
F33 TRLR REVERSE LAMPS (20A)
F34 TIM 1 (30A)
F35 SPARE (7.5A)
F36 ENGINE CONTROL MDL (15A)
F37 IGNITION COILS (20A)
F38 TRLR STOP LAMP LT (10A)
F39 TRLR STOP LAMP RT (10A)
F40 TCCM (40A)
F41 STARTER PINION (40A)
F42 STARTER (30A)
F43 NOT USED
F44 SPARE (10A)
F45 SPARE (10A)
F46 SPARE (10A)
F47 SPARE (2A)
F48 SPARE (25A)
F49 TBPM/TRLR WRG (40A)
F50 SPARE (20A)
F51 CHMSL (15A)
F52 SIDE MARKERS (10A)
F53 SPARE (15A)
F54 NOT USED
F55 REAR WNDW DEFOGGER (40A)
F56 NOT USED
F57 NOT USED
F58 FRONT WIPERS (30A)
F59 MISC WINDOWS LEFT (50A)
F60 NOT USED
F61 SPARE (25A)
F62 AMPLIFIER (30A)
F63 NOT USED
F64 NOT USED
F65 BLM 4 (25A)
F66 LOW BEAMS (15A)
F67 NOT USED
F68 HTD ST MDL 1 (15A)
F69 U/B CAMERA WASHER (15A)
F70 NOT USED
F71 DC/AC INVERTER (60A)
F72 SPARE (25A)
F73 AEROSHUTTER (10A)
F74 BLM 6 (30A)
F75 SPARE (30A)
F76 HTD ST MDL 2 (15A)
F77 NOT USED/NOT USED
F78 NOT USED/NOT USED
F79 NOT USED/NOT USED
F80 NOT USED
F81 NOT USED
F82 NOT USED
F83 LED CARGO LAMP (10A)
F84 BLM 7 (25A)
F85 NOT USED/NOT USED
F86 HORN (15A)
F87 FRONT WASHER PUMP (15A)
F88 NOT USED
F89 NOT USED
F90 MISC WINDOWS RIGHT (30A)
F91 NOT USED

6179241

X50A Engine Wiring Harness Junction Block Top View


X5
F01
F02
F03
F04
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F06
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F11
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F15
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TP4
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F74
F75
F76
F77
F78
F79
F80
F81
F82
F83
TP3
F84
F85
F86
F87
F88
F89
F90
F91
TP2

6179244

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	ICCM	F1UA	20A	• K38 Chassis Control Module
F2	NOT USED	F2UA	—	• Not Used
F3	NOT USED	F3UA	—	• Not Used
F4	COOLING FAN 2	F4UA	40A	• G10R Cooling Fan Motor - Right
F5	NOT USED	F5UA	—	• Not Used
F6	NOT USED	F6UA	—	• Not Used
F7	MTAOP	F7UA	25A	• G5 Automatic Transmission Auxiliary Fluid Pump (KL9)
F8	NOT USED	F8UA	—	• Not Used
F9	NOT USED	F9UA	—	• Not Used

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F10	NOT USED	F10UA	—	• Not Used
F11	SECONDARY AXLE MTR	F11UA	15A	• M26 Front Drive Axle Actuator (NP0/NQH)
F12	NOT USED	F12UA	—	• Not Used
F13	TRAILER CONNECTOR	F13UA	30A	• X88B Tow Vehicle Electrical Receptacle
F14	NOT USED	F14UA	—	• Not Used
F15	SVZA/CVS	F15UA	10A	• B218L Side Obstacle Detection Control Module - Left (UFB/UKI) • B218R Side Obstacle Detection Control Module - Right (UFB/UKI) • Q13 Evaporative Emission Canister Vent Solenoid Valve
F16	NOT USED	F16UA	—	• Not Used
F17	NOT USED	F17UA	—	• Not Used
F18	NOT USED/NOT USED	F18UA	—	• Not Used
F19	EBCM	F19UA	60A	• K160 Brake System Control Module
F20	COOLING FAN 1	F20UA	40A	• G10L Cooling Fan Motor - Left
F21	NOT USED/NOT USED	F21UA	—	• Not Used
F22	NOT USED	F22UA	—	• Not Used
F23	NOT USED/NOT USED	F23UA	—	• Not Used
F24	COOLING FAN 3	F24UA	40A	• G10LW Cooling Fan Motor - Lower (Z82)
F25	ENG MISC 1 and 2	F25UA	15A	• B52A Heated Oxygen Sensor 1 • B52B Heated Oxygen Sensor 2 • B75 Mass Airflow Sensor • K20 Engine Control Module • G58 Evaporative Emission Canister Purge Pump • M129A Intake Camshaft Profile Actuator 1 • M129B Intake Camshaft Profile Actuator 2 • M129C Intake Camshaft Profile Actuator 3 • M129D Intake Camshaft Profile Actuator 4 • M130B Exhaust Camshaft Profile Actuator 2 • M130C Exhaust Camshaft Profile Actuator 3 • Q12 Evaporative Emission Canister Purge Solenoid Valve • Q40 Turbocharger Bypass Valve Solenoid • Q97B Engine Coolant Flow Control Valve - Block
F26	A/C CLUTCH	F26UA	10A	• Q2 Air Conditioning Clutch
F27	FUEL TANK ZONE MDL	F27UA	25A	• K111 Fuel Pump Power Control Module
F28	PRK_LMP	F28UA	20A	• X88B Tow Vehicle Electrical Receptacle (Z82-U1D)
F29	SPARE	F29UA	5A	• Not Used
F30	TIM 2	F30UA	—	• K68 Trailer Lamp Control Module (U1D+Z82)
F31	PT_IGN_ECM	F31UA	30A	• K20 Engine Control Module
F32	NOT USED	F32UA	—	• Not Used
F33	TRLR REVERSE LAMPS	F33UA	10A	• X88B Tow Vehicle Electrical Receptacle (Z82-U1D)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F34	TIM 1	F34UA	30A	• K68 Trailer Lamp Control Module (U1D+Z82)
F35	SPARE	F35UA	7.5A	• Not Used
F36	ENGINE CONTROL MDL	F36UA	15A	• K20 Engine Control Module
F37	IGNITION COILS	F37UA	20A	• K20 Engine Control Module • T8A Ignition Coil 1 • T8B Ignition Coil 2 • T8C Ignition Coil 3 • T8D Ignition Coil 4
F38	TRAIL STOP LAMP LT	F38UA	10A	• X88B Tow Vehicle Electrical Receptacle (Z82-U1D)
F39	TRAIL STOP LAMP RT	F39UA	10A	• X88B Tow Vehicle Electrical Receptacle (Z82-U1D)
F40	TCCM	F40UA	40A	• K69 Transfer Case Control Module (NP0/NQH)
F41	STARTER PINON	F41UA	40A	• M64 Starter
F42	STARTER	F42UA	30A	• M64 Starter
F43	SPARE	F43UA	10A	• Not Used
F44	SPARE	F44UA	10A	• Not Used
F45	SPARE	F45UA	10A	• Not Used
F46	SPARE	F46UA	10A	• Not Used
F47	SPARE	F47UA	2A	• Not Used
F48	SPARE	F48UA	15A	• Not Used
F49	TBPM/TRLR WRG	F49UA	40A	• K67 Trailer Brake Control Module (JL1+Z82) • W24 Blunt Cut -Trailer Brakes Provisions (Z82-JL1)
F50	SPARE	F50UA	20A	• Not Used
F51	CHMSL	F51UA	15A	• E6 High Mount Stop Lamp
F52	SIDE MARKERS	F52UA	15A	• E2LFW Front Side Marker Lamp - Left Wheel Opening Molding • E2RFW Front Side Marker Lamp - Right Wheel Opening Molding • E2LRW Rear Side Marker Lamp - Left Wheel Opening Molding • E2RRW Rear Side Marker Lamp - Right Wheel Opening Molding
F53	SPARE	F53UA	15A	• Not Used
F54	NOT USED	F54UA	—	• Not Used
F55	REAR WNDS DEFOGGER	F55UA	40A	• E18 Rear Window Defogger Grid
F56	NOT USED	F56UA	—	• Not Used
F57	NOT USED	F57UA	—	• Not Used
F58	FRONT WIPERS	F58UA	30A	• KR12B Windshield Wiper Motor Relay • KR12C Windshield Wiper Motor Speed Control Relay
F59	MISC WINDOWS LEFT	F59UA	30A	• S79D Front Side Door Window Control Switch - Driver • S79LR Rear Side Door Window Switch - Left
F60	NOT USED	F60UA	—	• Not Used
F61	SPARE	F61UA	15A	• Not Used
F62	AMPLIFIER	F62UA	30A	• T3 Audio Amplifier (UQA)
F63	NOT USED	F63UA	—	• Not Used

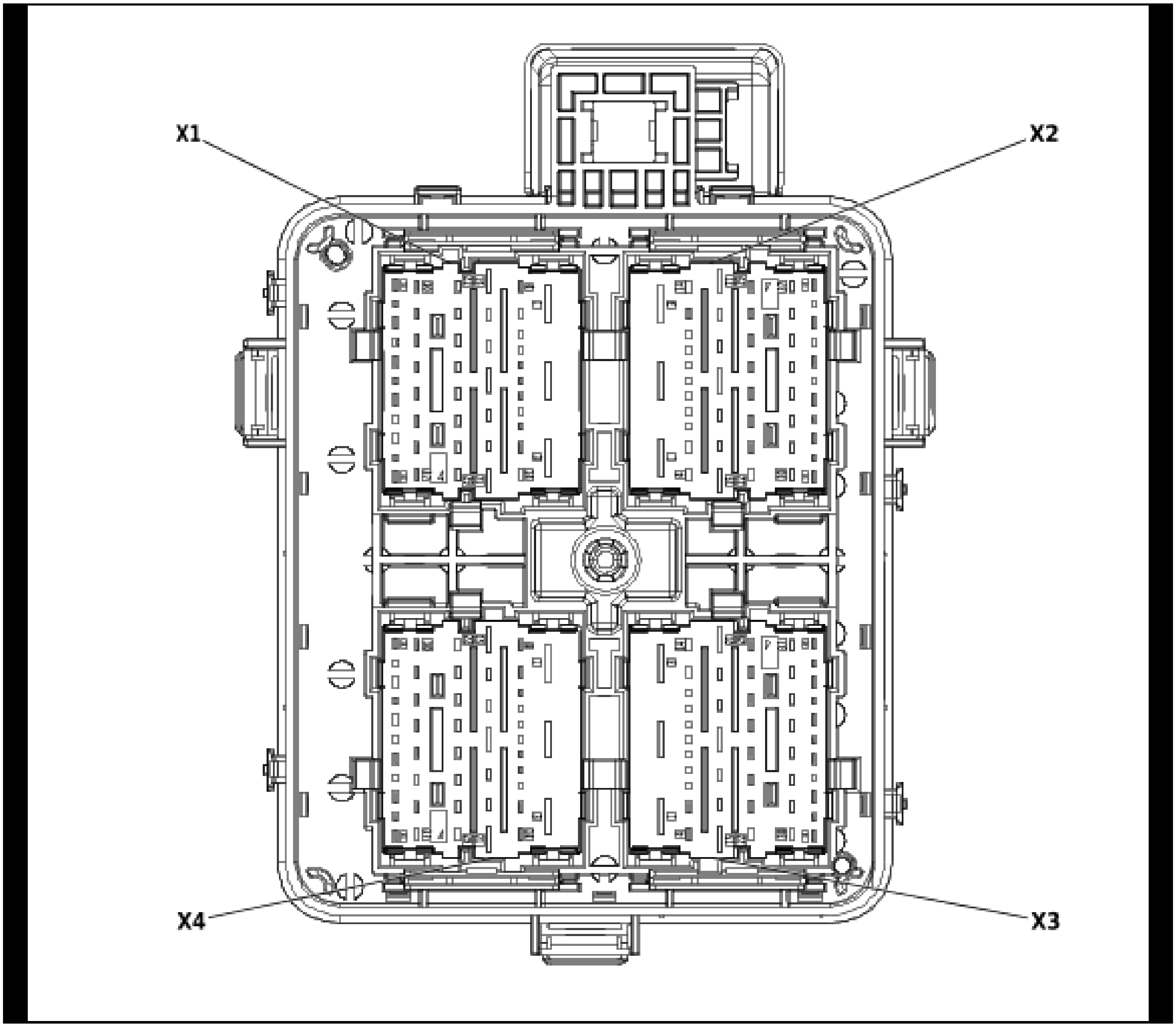
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F64	NOT USED	F64UA	—	• Not Used
F65	ELM 4	F65UA	25A	• K219 Lighting Control Module
F66	LOW BEAMS	F66UA	15A	• K221L Headlamp LED Driver Module - Left (T4L) • K221R Headlamp LED Driver Module - Right (T4L)
F67	NOT USED	F67UA	—	• Not Used
F68	HTD ST MDL 1	F68UA	15A	• K29FV Front Seat Heater Vent Control Module (KA1)
F69	U/B CAMERA WASHER	F69UA	15A	• KR204 Camera Washer Fluid Pump Relay - Underbody Cameras (UXA)
F70	NOT USED	F70UA	—	• Not Used
F71	DC/AC INVERTER	F71UA	60A	• T1 DC/AC Converter Control Module
F72	SPARE	F72UA	25A	• Not Used
F73	AEROSHUTTER	F73UA	10A	• M96 Active Grille Air Shutter Actuator • M96B Active Grille Air Shutter Actuator 2
F74	ELM 6	F74UA	20A	• K219 Lighting Control Module
F75	SPARE	F75UA	30A	• Not Used
F76	HTD ST MDL 2	F76UA	15A	• K29FV Front Seat Heater Vent Control Module (KA1)
F77	NOT USED/NOT USED	F77UA	—	• Not Used
F78	NOT USED/NOT USED	F78UA	—	• Not Used
F79	NOT USED/NOT USED	F79UA	—	• Not Used
F80	NOT USED	F80UA	—	• Not Used
F81	NOT USED	F81UA	—	• Not Used
F82	NOT USED	F82UA	—	• Not Used
F83	LED CARGO LAMP	F83UA	10A	• W26 Blunt Cut - Cargo Lamps Provision (S0Y)
F84	ELM 7	F84UA	25A	• K219 Lighting Control Module
F85	NOT USED/NOT USED	F85UA	—	• Not Used
F86	HORN	F86UA	15A	• P13 Horn
F87	FRONT WASHER PUMP	F87UA	15A	• KR11 Windshield Washer Pump Relay
F88	NOT USED	F88UA	—	• Not Used
F89	NOT USED	F89UA	—	• Not Used
F90	MISC WINDOWS RIGHT	F90UA	30A	• S79P Front Side Door Window Switch - Passenger • S79RR Rear Side Door Window Switch - Right
F91	NOT USED	F91UA	—	• Not Used
Note: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
—	—	KR3 Horn Relay	—	• F86UA
—	—	KR5 Rear Window Defogger Relay	—	• F55UA • F63UA
—	—	KR11 Windshield Washer Pump Relay	—	• G24 Windshield Washer Pump
—	—	KR12B Windshield Wiper Motor Relay	—	• M75 Windshield Wiper Motor

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
—	—	KR12C Windshield Wiper Motor Speed Control Relay	—	• M75 Windshield Wiper Motor
—	—	KR27 Starter Motor	—	• F42UA
—	—	KR27C Engine Restart Relay	—	• F41UA
—	—	KR29 A/C Compressor Clutch Relay	—	• F26UA
—	—	KR41 High Mount Stop Lamp Relay	—	• F51UA
—	—	KR53 Parking Lamp Relay	—	• F27UA • F25UA • F60UA
—	—	KR61 Trailer Backup Lamp Relay	—	• F33UA
—	—	KR63L Trailer Stop/Turn Signal Lamp Relay - Left	—	• F38UA
—	—	KR63R Trailer Stop/Turn Signal Lamp Relay - Right	—	• F39UA
—	—	KR75 Engine Controls Ignition Relay	—	• F14UA • F16UA • F21UA • F25UA • F31UA • F37UA • F43UA • F73UA
—	—	KR203 Front Drive Axle Actuator Relay	—	• F11UA
—	—	KR202 Accessory AC and DC Power Control Module Relay	—	• F71UA
—	—	KR204 Camera Washer Fluid Pump Relay - Underbody Cameras	—	• G24 Windshield Washer Pump
Note: Items listed below are diagnostic test points for Wiper/Washer				
TP1	—	TP1	—	• Front Wiper Control
TP2	—	TP2	—	• Front Wiper High
TP3	—	TP3	—	• Front Wiper Low
Note: Items listed below are diagnostic test points not used				
TP4	—	TP4	—	• Not Used

X50A Engine Wiring Harness Junction Block Bottom View



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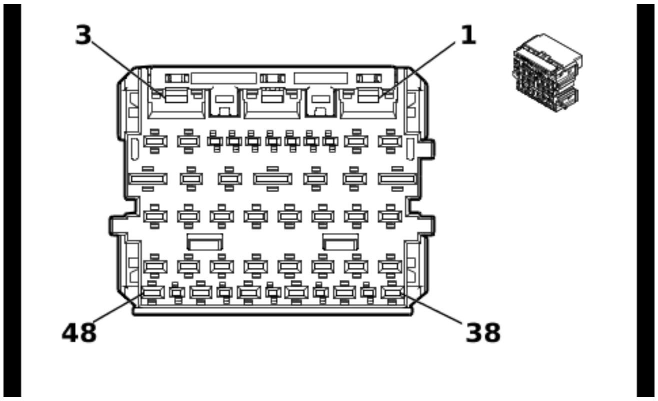
X50A Engine Wiring Harness Junction Block X1



5834300

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 7298-4594-60
Service Connector: 85595153
Description: 48-Way F 1.5, 2.8, 6.3 MCP, 9.5 YESC Series(GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333301	J-35616-22 (RD)	J-38125-215A
II	84764078	J-35616-42 (RD)	J-38125-215A
III	84779405	J-35616-35 (VT)	J-38125-215A

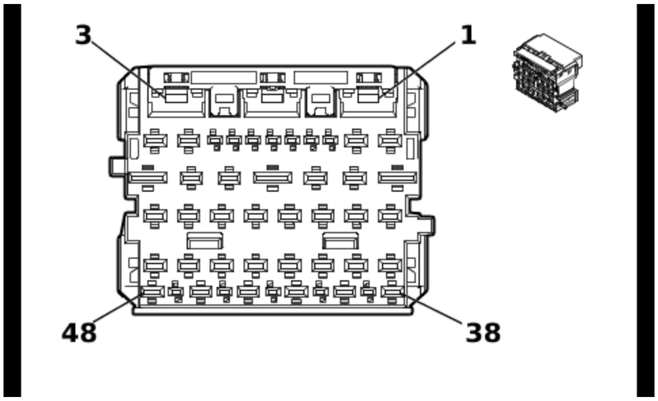
X50A Engine Wiring Harness Junction Block X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	RD / VT	1242	Battery Positive Voltage	I	—
2	6	RD / BN	440	Battery Positive Voltage	I	—
3 - 14	—	—	—	Not Occupied	—	—
15	3	RD / WH	2242	Battery Positive Voltage	II	—
16	2.5	RD / YE	5840	Battery Positive Voltage	III	—
17	2.5	RD / VT	5640	Battery Positive Voltage	III	—
18	—	—	—	Not Occupied	—	—
19	3	RD / GY	1042	Battery Positive Voltage	III	—
20 - 26	—	—	—	Not Occupied	—	—
27	0.5	RD / WH	4140	Battery Positive Voltage	III	—
28	0.5	GN	8016	Secondary Axle Motor Control	III	—
29	—	—	—	Not Occupied	—	—
30	0.75	GN / VT	1619	Right Rear Trailer Stop/Turn Lamp Control	III	—
31	0.75	WH / GN	1624	Trailer Backup Lamp Control	III	—
32	1.5	GY / BN	2109	Trailer Park Lamp Control	III	—
33 - 34	—	—	—	Not Occupied	—	—
35	0.5	RD / BN	4940	Battery Positive Voltage	III	—
36	—	—	—	Not Occupied	—	—
37	3	RD / VT	1940	Battery Positive Voltage	III	—
38	0.75	YE / GY	1618	Left Rear Trailer Stop/Turn Lamp Control	III	—

X50A Engine Wiring Harness Junction Block X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
39 - 47	—	—	—	Not Occupied	—	—
48	1	RD / WH	2140	Battery Positive Voltage	III	—

X50A Engine Wiring Harness Junction Block X2



5838162

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 7298-4593-40
Service Connector: 85595155
Description: 48-Way F 1.5, 2.8, 6.3 MCP, 9.5 YESC Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333301	J-35616-22 (RD)	J-38125-215A
II	19369711	J-35616-14 (GN)	EL-38125-560A
III	84764078	J-35616-42 (RD)	J-38125-215A
IV	84779405	J-35616-35 (VT)	J-38125-215A

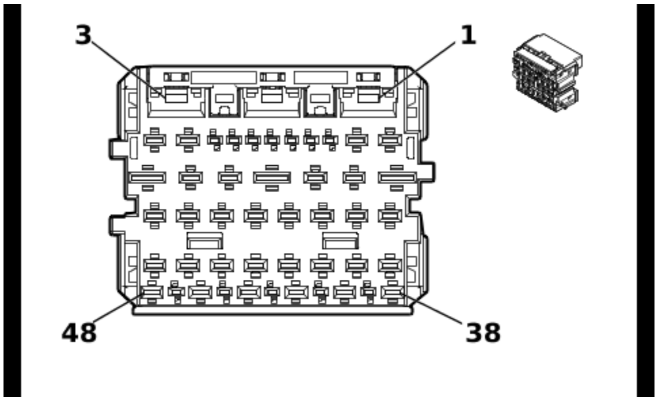
X50A Engine Wiring Harness Junction Block X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD / YE	1442	Battery Positive Voltage	I	—
2	5	RD / BU	1542	Battery Positive Voltage	I	—
3	4	YE / GN	4358	Starter Pinion Solenoid Voltage	I	—
4 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT / GY	8017	Secondary Axle Motor Relay Control	II	—
11	—	—	—	Not Occupied	—	—
12	0.5	YE / VT	4325	Starter Pinion Solenoid Actuator Relay Control	II	—
13 - 17	—	—	—	Not Occupied	—	—
18	5	RD / GY	1342	Battery Positive Voltage	III	—
19	—	—	—	Not Occupied	—	—
20	0.5	RD / WH	140	Battery Positive Voltage	IV	—
21	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	III	—
22 - 25	—	—	—	Not Occupied	—	—
26	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	IV	—
27	2	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	IV	—
28	1	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	IV	—
29 - 33	—	—	—	Not Occupied	—	—
34	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	IV	—
35	0.5	YE	5991	Powertrain Relay Coil Control	IV	—

X50A Engine Wiring Harness Junction Block X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
36	1	YE / BK	625	Starter Enable Relay Control	IV	—
37	—	—	—	Not Occupied	—	—
38	1.5	RD / BU	840	Battery Positive Voltage	IV	—
39 - 43	—	—	—	Not Occupied	—	—
44	0.75	BN / GN	59	Air Conditioning Compressor Clutch Control	IV	—
45 - 46	—	—	—	Not Occupied	—	—
47	0.5	WH / GY	459	Air Conditioning Compressor Clutch Relay Control	II	—
48	—	—	—	Not Occupied	—	—

X50A Engine Wiring Harness Junction Block X3



5833039

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 7298-4633-90
Service Connector: 85595154
Description: 48-Way F 1.5, 2.8, 6.3 MCP, 9.5 YESC Series(BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333301	J-35616-22 (RD)	J-38125-215A
II	19369711	J-35616-14 (GN)	EL-38125-560A
III	84764078	J-35616-42 (RD)	J-38125-215A
IV	84779405	J-35616-35 (VT)	J-38125-215A

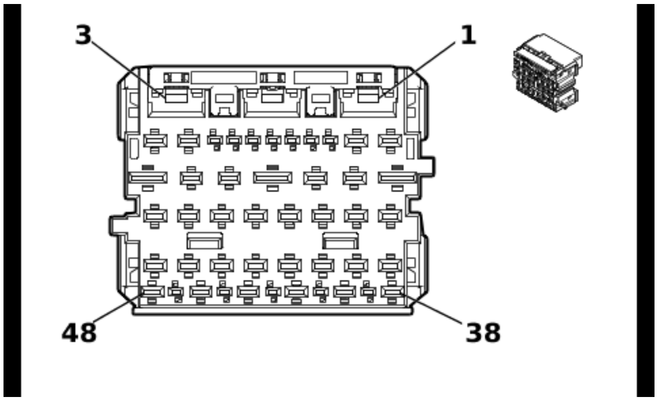
X50A Engine Wiring Harness Junction Block X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	5	BN / BK	4629	DC/AC Inverter Control	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	3	RD / YE	3740	Battery Positive Voltage	IV	—
6	0.35	BN / VT	193	Rear Defogger Relay Control	II	—
7 - 10	—	—	—	Not Occupied	—	—
11	0.5	WH / GN	4628	DC/AC Inverter Relay Control	II	—
12	—	—	—	Not Occupied	—	—
13	0.35	BN / GY	2268	Windshield Washer Relay Control	IV	—
14	0.75	BK	2250	Ground	IV	—
15	2.5	BN / VT	293	Rear Defogger Grid Control	III	—
16 - 19	—	—	—	Not Occupied	—	—
20	0.75	GY / VT	228	Windshield Washer Pump Control	IV	—
21 - 23	—	—	—	Not Occupied	—	—
24	0.75	RD / WH	640	Battery Positive Voltage	IV	—
25	0.5	VT / BU	5705	Powertrain Main Relay Control	IV	—
26	—	—	—	Not Occupied	—	—
27	0.75	RD / BU	840	Battery Positive Voltage	IV	—
28 - 31	—	—	—	Not Occupied	—	—

X50A Engine Wiring Harness Junction Block X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
32	0.75	RD / YE	740	Battery Positive Voltage	IV	—
33	1	RD / VT	1640	Battery Positive Voltage	IV	—
34 - 40	—	—	—	Not Occupied	—	—
41	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	II	—
42 - 43	—	—	—	Not Occupied	—	—
44	2.5	BK	150	Ground	IV	—
45	—	—	—	Not Occupied	—	—
46	2.5	YE / BN	95	Windshield Wiper Motor Low Speed Control	IV	—
47	0.35	WH / VT	860	Windshield Wiper Switch High Signal	II	—
48	2.5	WH	92	Windshield Wiper Motor High Speed Control	IV	—

X50A Engine Wiring Harness Junction Block X4



5830395

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 7298-4588-30
Service Connector: 85650078
Description: 48-Way F 1.5, 2.8, 6.3 MCP, 9.5 YESC Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333301	J-35616-22 (RD)	J-38125-215A
II	19369711	J-35616-14 (GN)	EL-38125-560A
III	84764078	J-35616-42 (RD)	J-38125-215A
IV	84779405	J-35616-35 (VT)	J-38125-215A

X50A Engine Wiring Harness Junction Block X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	4	RD / BN	4142	Primary Fused Battery Positive Voltage	I	—
4	2.5	BK	2250	Ground	IV	—
5	0.35	BN / WH	28	Horn Relay Control	IV	—
6 - 14	—	—	—	Not Occupied	—	—
15	2.5	RD / GY	3540	Battery Positive Voltage	III	—
16	0.75	BN / GY	29	Horn Control	IV	—
17	0.5	RD / VT	3340	Battery Positive Voltage	IV	—
18	—	—	—	Not Occupied	—	—
19	0.35	GN / WH	2270	Rear Window Washer Relay Control	IV	—
20 - 21	—	—	—	Not Occupied	—	—
22	2.5	RD / GY	3540	Battery Positive Voltage	IV	—
23 - 25	—	—	—	Not Occupied	—	—
26	0.75	BU / VT	392	Rear Window Washer Pump Control	IV	—
27	1.5	RD / BN	1440	Battery Positive Voltage	IV	—
28	—	—	—	Not Occupied	—	—
29	0.35	BU / BN	38	Backup Lamp Relay Control	IV	—
30	2.5	RD / YE	4340	Battery Positive Voltage	IV	—
31 - 33	—	—	—	Not Occupied	—	—

X50A Engine Wiring Harness Junction Block X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
34	0.75	RD / BU	4540	Battery Positive Voltage	IV	—
35	0.35	WH / BN	7055	Auxiliary Park Lamp Relay Control	IV	—
36	—	—	—	Not Occupied	—	—
37	0.5	BN / GN	4246	Identification Lamp Control	IV	—
38 - 39	—	—	—	Not Occupied	—	—
40	1.5	RD / GY	1740	Battery Positive Voltage	IV	—
41	—	—	—	Not Occupied	—	—
42	0.75	RD / VT	4640	Battery Positive Voltage	IV	—
43	0.35	GN / BN	319	Right Rear Trailer Stop/Turn Lamp Control	II	—
44	—	—	—	Not Occupied	—	—
45	0.35	BN / YE	820	Center High Mounted Stop Lamp Supply Voltage	II	—
46	2.5	RD / BU	1240	Battery Positive Voltage	IV	—
47	0.35	YE / BU	318	Left Rear Trailer Stop/Turn Lamp Control	II	—
48	0.5	BU / BK	1053	Center High Mounted Stop Lamp Control 3	IV	—

X50A Engine Wiring Harness Junction Block X5

—

Connector Part Information

Harness Type: Battery Negative Cable
OEM Connector: 84809752
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way

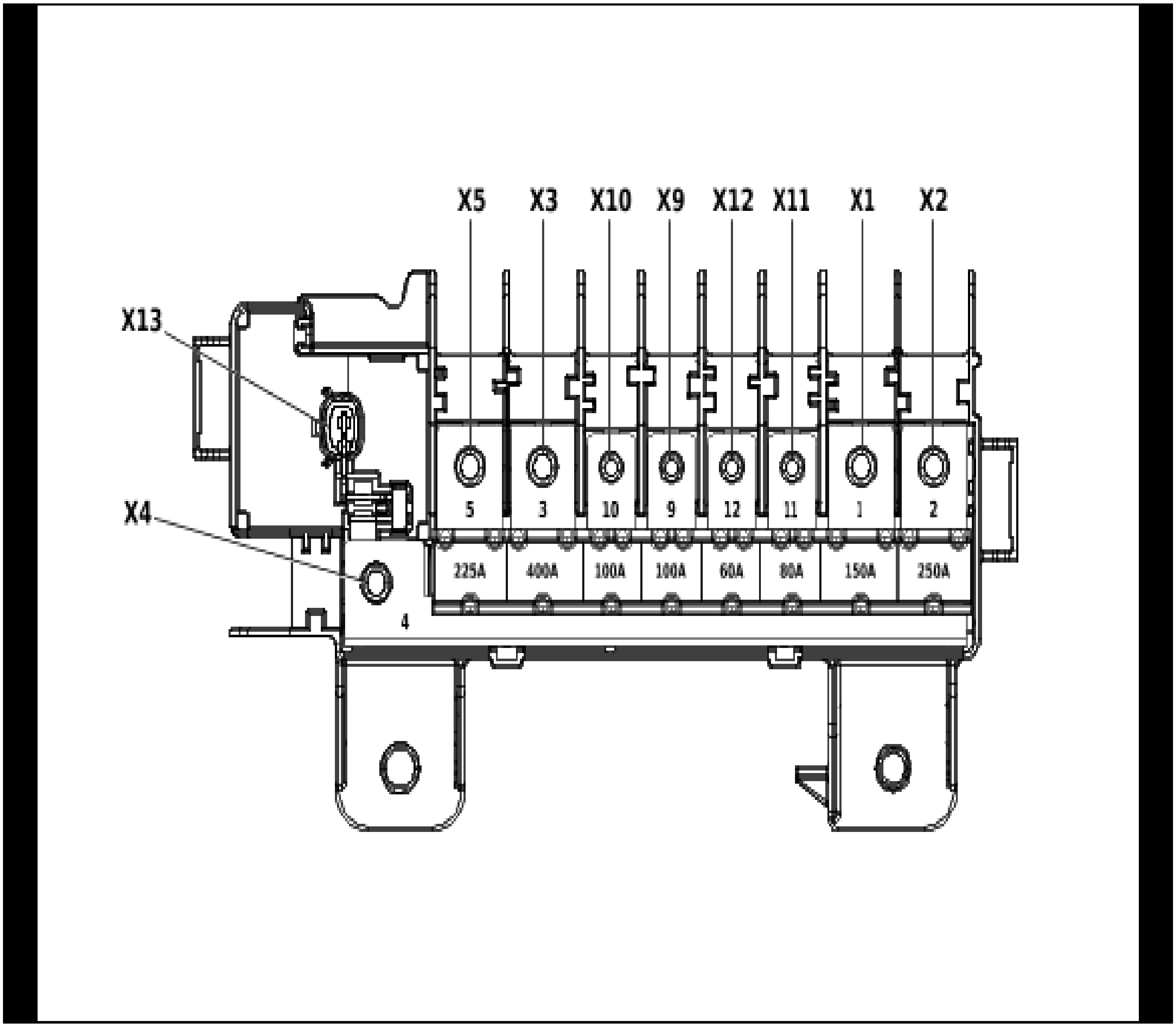
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50A Engine Wiring Harness Junction Block X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD / WH	4042	Battery Positive Voltage	I	—

X50B Battery Distribution Engine Compartment Fuse Block Top View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X3
X10
X9
X12
X11
X1
X2
X13
X4
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11
1
2
225A
400A
100A
100A
60A
80A
150A
250A
4

6179249

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
1	—	F1BA	150A	- K43 Power Steering Control Module
2	—	F2BA	250A	- X50A Engine Wiring Harness Junction Block
3	—	F3BA	400A	- M64 Starter
5	—	F5BA	225A	- G13 Generator (-Z82)
5	—	F5BA	300A	- G13 Generator (Z82)
9	—	F9BA	100A	- X51A Instrument Panel Wiring Harness Junction Block
10	—	F10BA	100A	- X51A Instrument Panel Wiring Harness Junction Block
11	—	F11BA	80A	- G59 Engine Coolant Pump
12	—	F12BA	60A	- K160 Brake System Control Module

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
13	—	F13BA	5A	• B110 Battery Monitor Module

X50B Battery Distribution Engine Compartment Fuse Block X1

—

Connector Part Information

Harness Type: Battery Negative Cable Extension Cable
OEM Connector: 84809754
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50B Battery Distribution Engine Compartment Fuse Block X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD / VT	542	Battery Positive Voltage	I	—

X50B Battery Distribution Engine Compartment Fuse Block X2

—

Connector Part Information

Harness Type: Battery Negative Cable Extension Cable
OEM Connector: 84809755
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50B Battery Distribution Engine Compartment Fuse Block X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD / WH	4042	Battery Positive Voltage	I	—

X50B Battery Distribution Engine Compartment Fuse Block X3

—

Connector Part Information

Harness Type: Battery Negative Cable Extension Cable
OEM Connector: 84809753
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50B Battery Distribution Engine Compartment Fuse Block X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD / YE	2	Battery Positive Voltage	I	—

X50B Battery Distribution Engine Compartment Fuse Block X5

—

Connector Part Information

Harness Type: Battery Negative Cable
OEM Connector: 84809752
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way

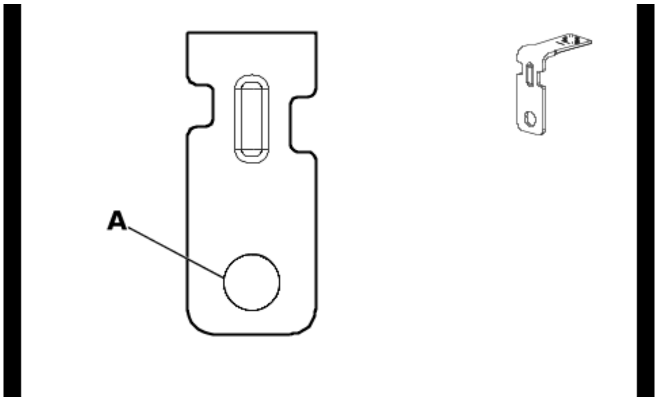
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50B Battery Distribution Engine Compartment Fuse Block X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD / YE	2	Battery Positive Voltage	I	—

X50B Battery Distribution Engine Compartment Fuse Block X9



6143257

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1136802
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

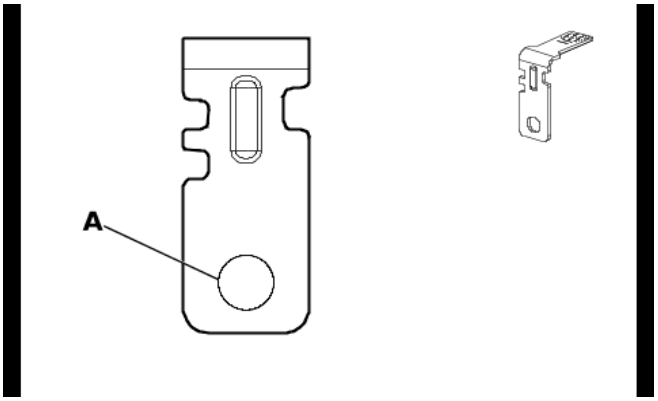
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50B Battery Distribution Engine Compartment Fuse Block X9

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	10	RD / GN	742	Battery Positive Voltage	I	—

X50B Battery Distribution Engine Compartment Fuse Block X10



6143262

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1136902
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

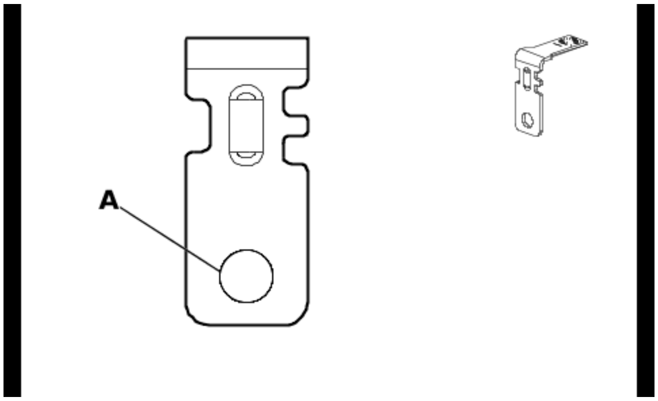
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50B Battery Distribution Engine Compartment Fuse Block X10

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	10	RD / VT	542	Battery Positive Voltage	I	—

X50B Battery Distribution Engine Compartment Fuse Block X11



6143251

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1136602
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

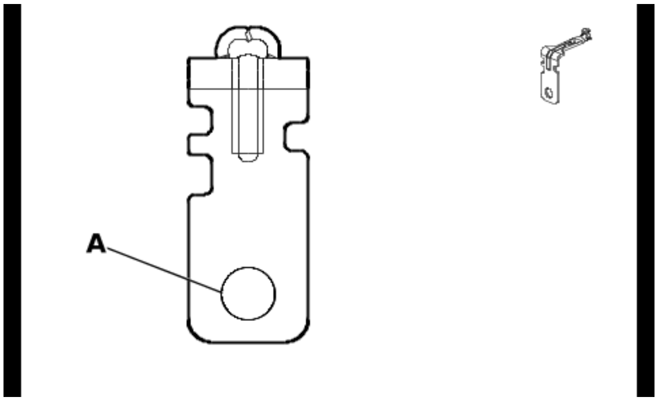
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50B Battery Distribution Engine Compartment Fuse Block X11

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	10	RD / YE	442	Battery Positive Voltage	I	—

X50B Battery Distribution Engine Compartment Fuse Block X12



Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 84841283
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

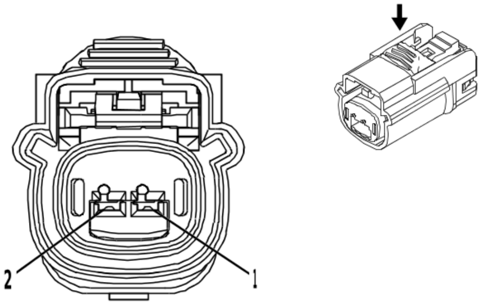
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X50B Battery Distribution Engine Compartment Fuse Block X12

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	6	RD / WH	342	Battery Positive Voltage	I	—

X50B Battery Distribution Engine Compartment Fuse Block X13



4332222

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33314786
Service Connector: 19368124
Description: 2-Way F 1.5 OCS Series, Sealed(BK)

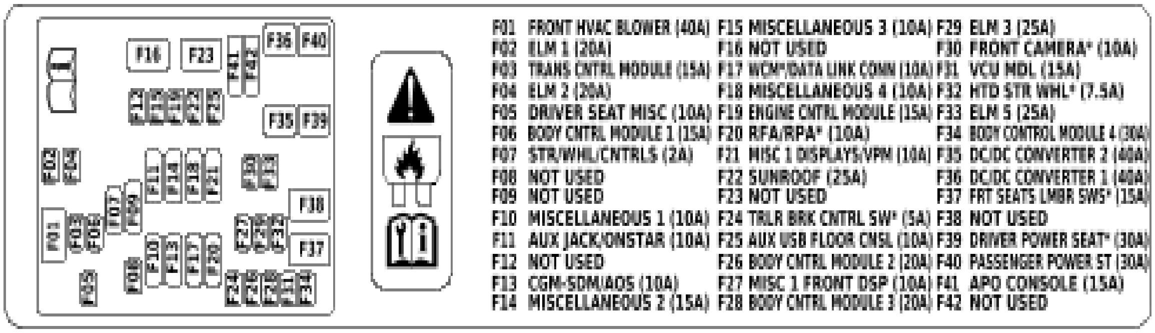
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

X50B Battery Distribution Engine Compartment Fuse Block X13

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	RD / YE	2340	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—

X51A Instrument Panel Wiring Harness Junction Block Label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F01 FRONT HVAC BLOWER (40A)
F02 ELM 1 (20A)
F03 TRANS CNTRL MODULE (15A)
F04 ELM 2 (20A)
F05 DRIVER SEAT MISC (10A)
F06 BODY CNTRL MODULE 1 (15A)
F07 STR/WHL/CNTRLS (2A)
F08 NOT USED
F09 NOT USED
F10 MISCELLANEOUS 1 (10A)
F11 AUX JACK/ONSTAR (10A)
F12 NOT USED
F13 CGM-SDM/AOS (10A)
F14 MISCELLANEOUS 2 (15A)
F15 MISCELLANEOUS 3 (10A)
F16 NOT USED
F17 WCM*/DATA LINK CONN (10A)
F18 MISCELLANEOUS 4 (10A)
F19 ENGINE CNTRL MODULE (15A)
F20 RFA/RPA* (10A)
F21 MISC 1 DISPLAYS/VPM (10A)
F22 SUNROOF (25A)
F23 NOT USED
F24 TRLR BRK CNTRL SW* (5A)
F25 AUX USB FLOOR CNSL (10A)
F26 BODY CNTRL MODULE 2 (20A)
F27 MISC 1 FRONT DSP (10A)
F28 BODY CNTRL MODULE 3 (20A)
F29 ELM 3 (25A)
F30 FRONT CAMERA* (10A)
F31 VCU MDL (15A)
F32 HTD STR WHL* (7.5A)
F33 ELM 5 (25A)
F34 BODY CONTROL MODULE 4 (30A)
F35 DC/DC CONVERTER 2 (40A)
F36 DC/DC CONVERTER 1 (40A)
F37 FRT SEATS LMBR SWS* (15A)
F38 NOT USED
F39 DRIVER POWER SEAT* (30A)
F40 PASSENGER POWER ST (30A)
F41 APO CONSOLE (15A)
F42 NOT USED

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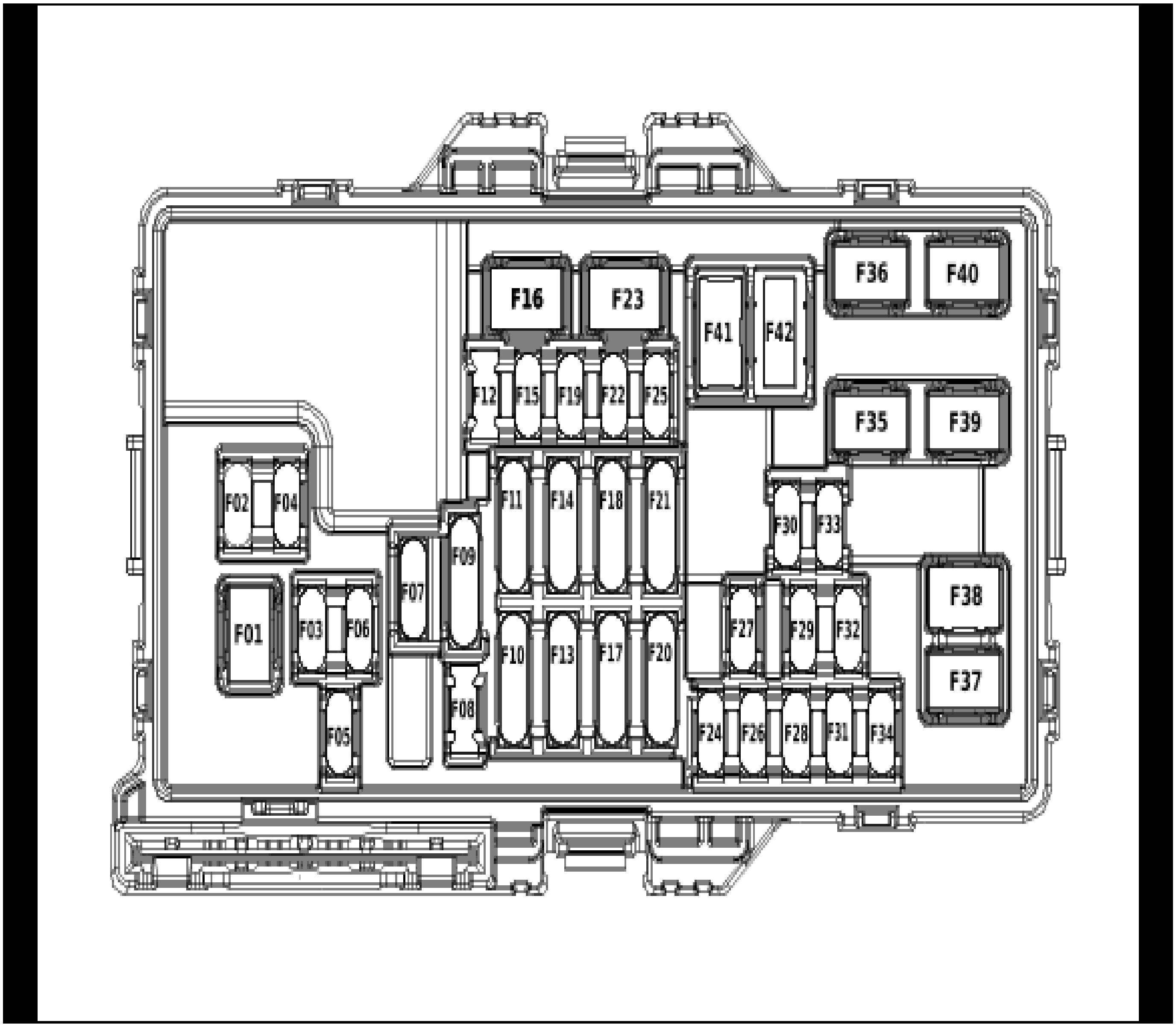
X51A Instrument Panel Wiring Harness Junction Block Top View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6179245

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	FRONT HVAC BLOWER	F1DA	40A	• M8 Blower Motor
F2	ELM 1	F2DA	20A	• K219 Lighting Control Module
F3	TRANS CNTRL MODULE	F3DA	15A	• K71 Transmission Control Module
F4	ELM 2	F4DA	20A	• K219 Lighting Control Module
F5	DRIVER SEAT MISC	F5DA	10A	• K40D Driver Seat Adjuster Memory Module (A45) • S64D Front Seat Adjuster Switch - Driver (A45)
F6	BODY CNTRL MODULE 1	F6DA	20A	• K9 Body Control Module
F7	STR/WHL/ CNTRLS	F7DA	2A	• S70R Radio Control Switch - Steering Wheel

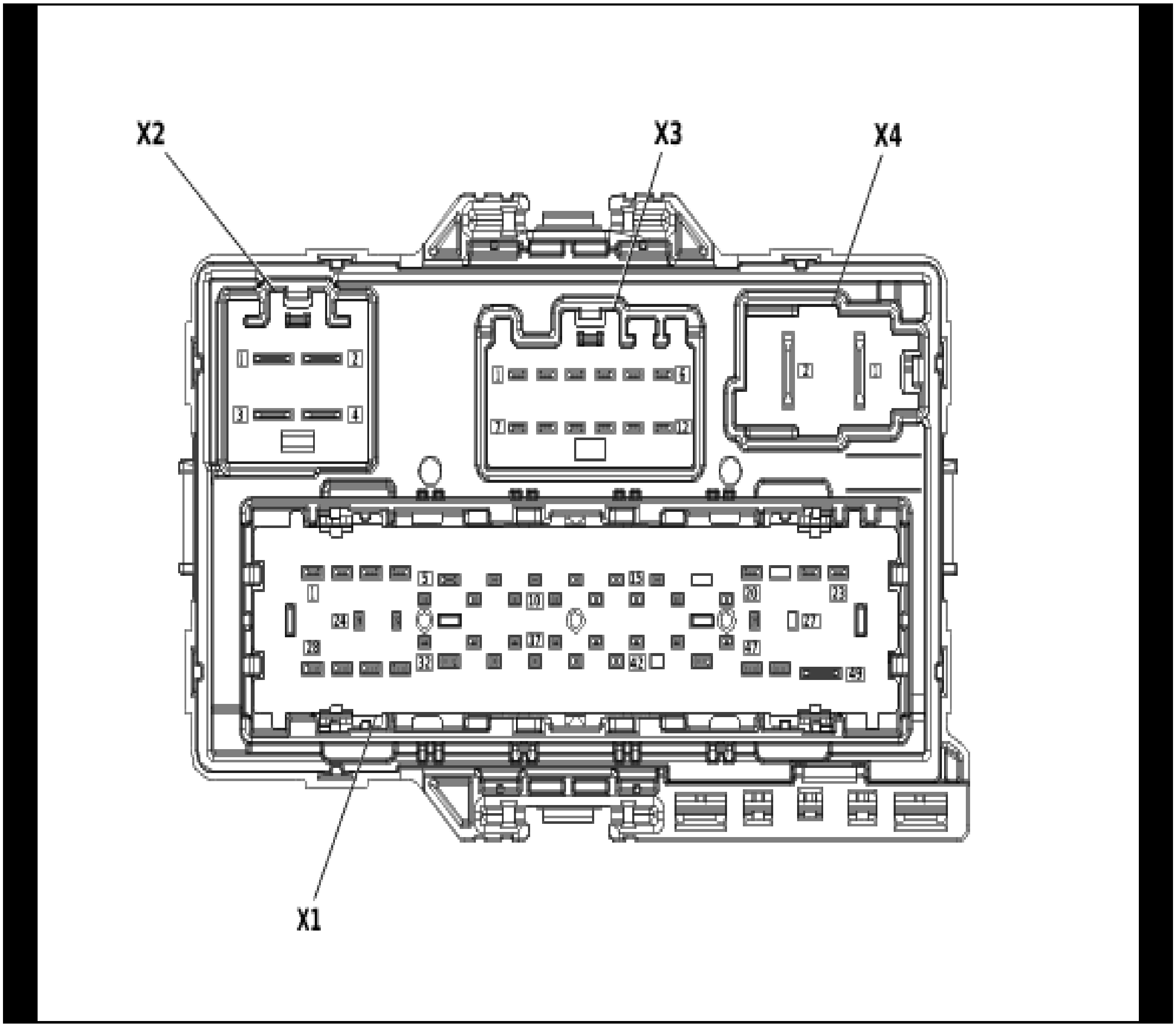
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F8	NOT USED	F8DA	—	• Not Used
F9	NOT USED	F9DA	—	• Not Used
F10	MISCELLANEOUS 1	F10DA	10A	• P14 Instrument Panel Airbag Arming Status Display • S91 Parking Brake Control Switch
F11	AUX JACK/ON-STAR	F11DA	10A	• K73 Telematic Control Module • X92G USB 2 Port Receptacle
F12	NOT USED	F12DA	—	• Not Used
F13	CGM-SCM/AOS	F13DA	10A	• K36 Restraints Control Module • K56 Serial Data Gateway Module • K85P Restraints Occupant Classification System Module - Passenger
F14	MISCELLANEOUS 2	F14DA	15A	• K38 Chassis Control Module (G93/G94) • K71 Transmission Control Module • K160 Brake System Control Module
F15	MISCELLANEOUS 3	F15DA	10A	• K219 Lighting Control Module • M73D Front Seat Cushion Ventilation Blower - Driver (KU9) • M73P Front Seat Cushion Ventilation Blower - Passenger (KU9) • T1 DC/AC Converter Control Module
F16	NOT USED	F16DA	—	• Not Used
F17	WCM/DATA LINK CONN	F17DA	10A	• T22 Wireless Accessory Charging Module (K4C) • X84 Data Link Connector
F18	MISCELLANEOUS 4	F18DA	10A	• A10 Inside Rearview Mirror (DD8) • B160 Inside Air Moisture and Windshield Temperature Sensor • K36 Restraints Control Module • P43 Forward Collision Alert Display (UIT- UV6) • S126 Ride Control Switch (NP0/NPQ)
F19	ENGINE CNTRL MODULE	F19DA	15A	• K20 Engine Control Module
F20	RFA / RPA	F20DA	10A	• K77 Remote Function Actuator Module • K182 Parking Assist Control Module (UD7)
F21	MISC 1 DISPLAYS/VPM	F21DA	10A	• A22 Radio Control • A26 Heater and Air Conditioning User Interface Control • K157 Video Processing Module (UV2/UXA-UVB) • P16 Instrument Panel Cluster Control Module • P29 Head-Up Display (UV6)
F22	SUNROOF	F22DA	25A	• K61 Sunroof Control Module (CAC)
F23	NOT USED	F23DA	—	• Not Used
F24	TRLR BRK CNRTL SW	F24DA	5A	• S76 Trailer Brake Control Switch (JL1+Z82)
F25	AUS USB FLOOR CNSL	F25DA	10A	• X92C Single Charge Only 2nd Row Receptacle - Floor Console Rear
F26	BODY CNTRL MODULE 2	F26DA	20A	• K9 Body Control Module
F27	MISC 1 FRONT DSP	F27DA	10A	• S79D Front Side Door Window Control Switch - Driver
F28	BODY CNTRL MODULE 3	F28DA	20A	• K9 Body Control Module

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F29	ELM 3	F29DA	25A	• K219 Lighting Control Module
F30	FRONT CAMERA	F30DA	10A	• B174W Front View Camera - Windshield
F31	VCU MDL	F31DA	15A	• A11 Radio
F32	HTD STR WHL	F32DA	7.5A	• K32 Heated Steering Wheel Module (KI3)
F33	ELM 5	F33DA	25A	• K219 Lighting Control Module
F34	BODY CNTRL MODULE 4	F34DA	30A	• K9 Body Control Module
F35	DC/DC CONVERTER 2	F35DA	40A	• T19 Multifunction Power Supply Converter
F36	DC/DC CONVERTER 1	F36DA	40A	• T19 Multifunction Power Supply Converter
F37	FRT SEATS LMBR SWS	F37DA	15A	• S65D Front Seat Lumbar Switch - Driver (AL9) • S65P Front Seat Lumbar Switch - Passenger (AT9)
F38	NOT USED	F38DA	—	• Not Used
F39	DRIVER POWER SEAT	F39DA	30A	• K40D Driver Seat Adjuster Memory Module (A45) • S64D Front Seat Adjuster Switch - Driver (A2X)
F40	PASSENGER POWER ST	F40DA	30A	• S64P Front Seat Adjuster Switch - Passenger (A7J)
F41	APO CONSOLE	CB41DA	15A	• X80L Front Floor Console Accessory Power Rear Receptacle
F42	NOT USED	CB42DA	—	• Not Used
Note: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
—	—	KR73 Ignition Main Relay	—	• F12DA • F14DA • F15DA • F19DA • F18DA
—	—	KR76 Accessory Time Delay Cutoff Relay	—	• F23DA • F25DA • CB41DA • CB42DA

X51A Instrument Panel Wiring Harness Junction Block Bottom View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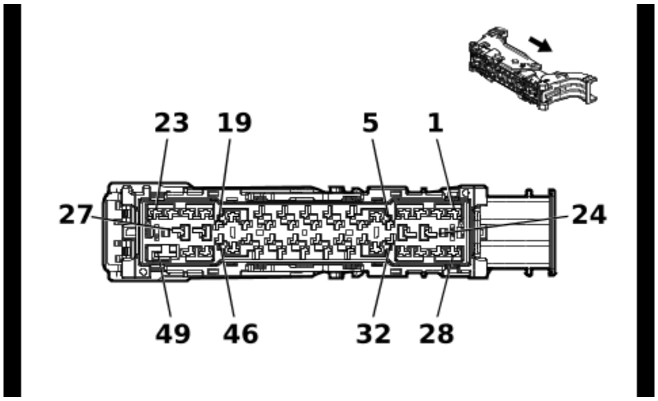
X51A Instrument Panel Wiring Harness Junction Block X1



5835272

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13537037
Service Connector: 85564872
Description: 49-Way F 1.5, 2.8, 6.3 Kaizen Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575835	J-35616-42 (RD)	J-38125-11A
II	13575850	J-35616-2A (GY)	J-38125-557
III	19368264	J-35616-4A (PU)	J-38125-11A

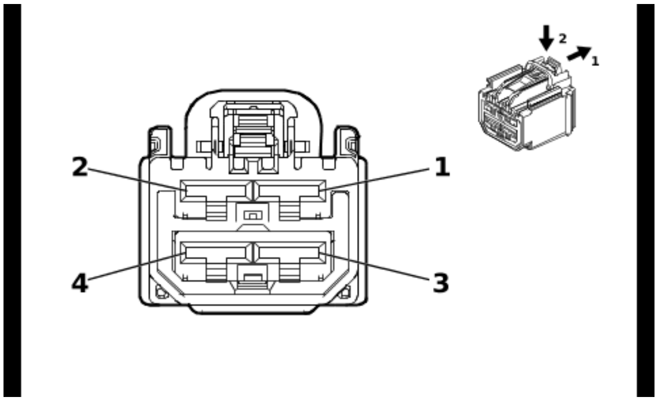
X51A Instrument Panel Wiring Harness Junction Block X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	1.5	RD / GN	1540	Battery Positive Voltage	III	—
4	1.5	RD / WH	1340	Battery Positive Voltage	III	—
5	0.5	RD / VT	1940	Battery Positive Voltage	II	—
6	1	VT	1001	Retained Accessory Power Ignition Voltage	III	—
7	—	—	—	Not Occupied	—	—
8	0.5	VT	4701	Retained Accessory Power Control	II	—
9	0.35	RD / BN	1440	Battery Positive Voltage	II	—
10	—	—	—	Not Occupied	—	—
11	0.5	VT / WH	1139	Run/Crank Ignition 1 Voltage	II	—
12	0.5	VT / BK	739	Run/Crank Ignition 1 Voltage	II	—
13	—	—	—	Not Occupied	—	—
14	0.35	RD / WH	7240	Battery Positive Voltage	II	—
15	0.5	RD / BU	3240	Battery Positive Voltage	II	—
16 - 18	—	—	—	Not Occupied	—	—
19	0.35	GN / VT	5199	Run/Crank Relay Coil Control	II	—
20	0.75	RD / WH	2740	Battery Positive Voltage	III	—
21	—	—	—	Not Occupied	—	—
22	1	RD / BU	1240	Battery Positive Voltage	III	—
23	1	RD / BN	1140	Battery Positive Voltage	III	—

X51A Instrument Panel Wiring Harness Junction Block X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	0.35	RD / BN	10040	Battery Positive Voltage	II	—
25	—	—	—	Not Occupied	—	—
26	0.35	GY / GN	4083	Retained Accessory Power Relay 2 Coil Control	II	—
27	0.75	RD / GN	1840	Battery Positive Voltage	II	—
28	0.75	RD / WH	3440	Battery Positive Voltage	III	—
29	2	RD / BU	2540	Battery Positive Voltage	III	—
30	0.75 0.75	RD / WH RD / BN	2040 2240	Battery Positive Voltage Battery Positive Voltage	III III	UQA - UQA
31	1	RD / GY	2140	Battery Positive Voltage	III	—
32	—	—	—	Not Occupied	—	—
33	1	RD / GY	2840	Battery Positive Voltage	III	—
34	0.35	RD / VT	4040	Battery Positive Voltage	II	—
35	—	—	—	Not Occupied	—	—
36	0.35	VT / GN	39	Run/Crank Ignition 1 Voltage	II	—
37	0.5	RD / BU	3240	Battery Positive Voltage	II	—
38	0.5	RD / VT	6340	Battery Positive Voltage	II	—
39	0.35	RD / WH	6440	Battery Positive Voltage	II	—
40	0.5	RD / GN	4440	Battery Positive Voltage	II	—
41	—	—	—	Not Occupied	—	—
42	0.5	RD / GN	5140	Battery Positive Voltage	II	—
43 - 45	—	—	—	Not Occupied	—	—
46	0.35	RD / GN	5140	Battery Positive Voltage	II	—
47	—	—	—	Not Occupied	—	—
48	0.35	RD / VT	3340	Battery Positive Voltage	III	—
49	5	RD / WH	2040	Battery Positive Voltage	I	—

X51A Instrument Panel Wiring Harness Junction Block X2



5492913

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 7289-7459-40
Service Connector: 84766433
Description: 4-Way F 6.3 YESC Series(GY)

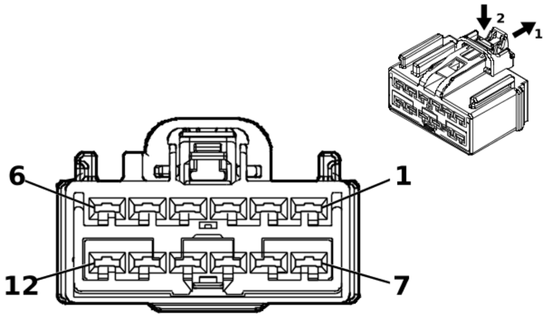
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

X51A Instrument Panel Wiring Harness Junction Block X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD / YE	4340	Battery Positive Voltage	I	—
2	2.5	RD / BU	2540	Battery Positive Voltage	I	—
3	2.5	RD / GY	3540	Battery Positive Voltage	I	—
4	2.5	RD / VT	2640	Battery Positive Voltage	I	—

X51A Instrument Panel Wiring Harness Junction Block X3



5254826

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 7289-9152-40
Service Connector: 13518424
Description: 12-Way F 2.8 Kaizen Series(L-GY)

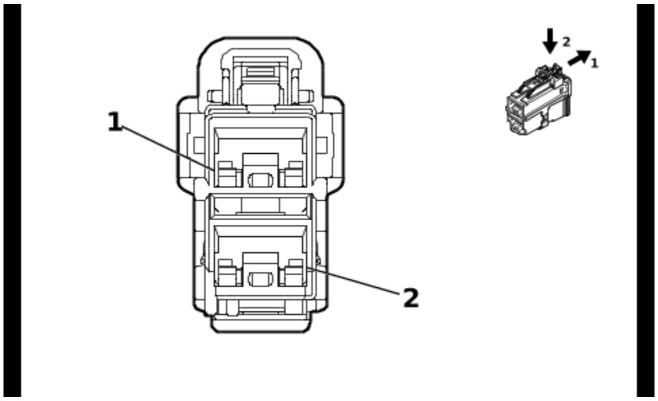
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368264	J-35616-4A (PU)	J-38125-11A

X51A Instrument Panel Wiring Harness Junction Block X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD / GN	2173	12V Regulated Supply Voltage 2	I	—
2	1.5	RD / YE	2340	Battery Positive Voltage	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	BK / WH	451	Signal Ground	I	—
6	2.5	RD / YE	2172	12V Regulated Supply Voltage 1	I	—
7	0.35	RD / YE	240	Battery Positive Voltage	I	—
8	0.5	RD / VT	1640	Battery Positive Voltage	I	—
9	0.35	RD / VT	1640	Battery Positive Voltage	I	—
10	0.5	VT / BK	739	Run/Crank Ignition 1 Voltage	I	—
11	0.5 0.35	VT / BK VT / WH	739 1139	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	I I	KI7/ KCA/ KI6/ KC9/ KU9 KI7- KCA- KI6- KC9- KU9
12	—	—	—	Not Occupied	—	—

X51A Instrument Panel Wiring Harness Junction Block X4



5835292

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 7289-8732-30
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 9.5 YESC Series(BK)

Terminal Part Information

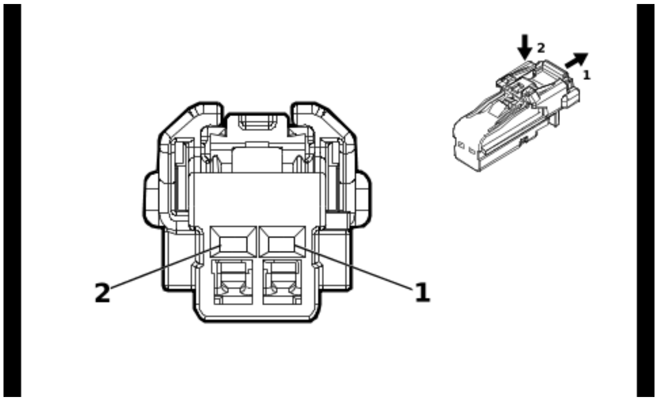
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

X51A Instrument Panel Wiring Harness Junction Block X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	10	RD / VT	542	Battery Positive Voltage	I	—
2	10	RD / GN	742	Battery Positive Voltage	I	—

Component Connector End Views

A3L Sunshade - Left (DEG)



4115691

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 6098-8988
Service Connector: 87816612
Description: 2-Way F 1.2 MCON Series(BK)

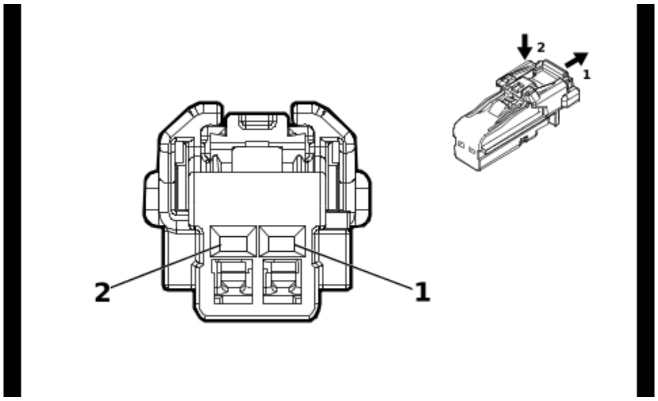
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

A3L Sunshade - Left (DEG)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / BN	6815	Inadvertent Load Control	I	—
2	0.35	BK	4250	Ground	I	—

A3R Sunshade - Right (DEG)



4115691

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 6098-8988
Service Connector: 87816612
Description: 2-Way F 1.2 MCON Series(BK)

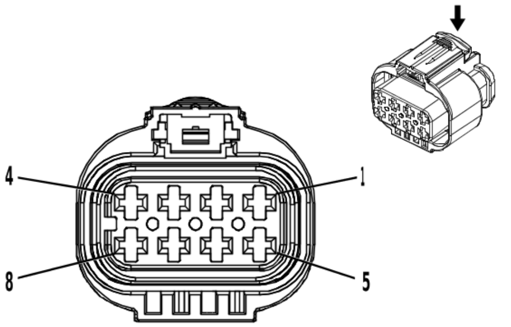
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

A3R Sunshade - Right (DEG)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / BN	6815	Inadvertent Load Control	I	—
2	0.35	BK	4250	Ground	I	—

A7 Fuel Tank Fuel Pump Module



3749582

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 2-2109441-5
Service Connector: 19354078
Description: 8-Way F 2.8 Series, Sealed(L-GY)

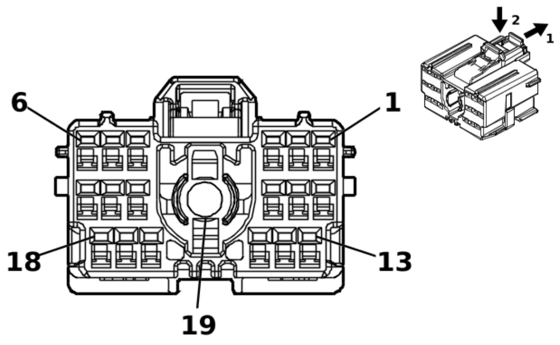
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

A7 Fuel Tank Fuel Pump Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GY	120	Fuel Pump Control	I	—
2	2.5	YE / GY	4137	Fuel Pump Supply Voltage Phase 2	I	—
3	2.5	WH / BN	4138	Fuel Pump Supply Voltage Phase 3	I	—
4	0.5	WH	7444	Fuel Pump Assembly Shield Ground	II	—
5	0.5	BU / GN	1936	Primary Fuel Level Sensor Signal	II	—
6	0.5	BK / GN	6281	Fuel Level Sensor Low Reference	II	—
7 - 8	—	—	—	Not Occupied	—	—

A9A Outside Rearview Mirror - Driver



5253439

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 6098-8386
Service Connector: Service by Harness - See Part Catalog
Description: 19-Way F 1.2 MCON, Coaxial Series(BK)

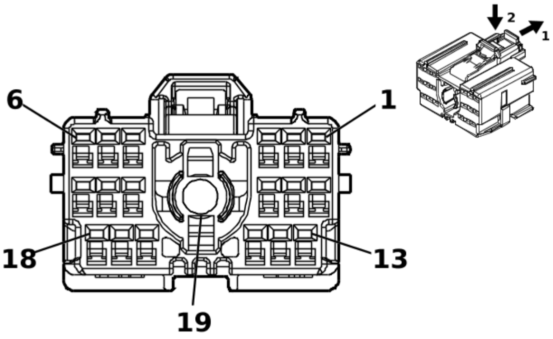
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	No Tool Required	No Tool Required

A9A Outside Rearview Mirror - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / BK	2790	Left Front Mirror Motor Right [+] Left [-] Control	I	—
2	0.35	VT / BU	2788	Left Front Mirror Motor Up [+] Down [-] Control	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	GY / YE	1760	Left Side Object Detection LED Control	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	WH / YE	2792	Left Front Mirror Position Sensor Left [-] Right [+] Signal	I	—
7	0.5	WH	606	Left Outside Rearview Mirror Heater Control	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	BK	3750	Ground	I	—
10	0.35	VT / RD	2791	Left Front Mirror Position Sensor High Reference	I	—
11	0.35	GY / BN	2787	Left Front Mirror Position Sensor Up [+] Down [-] Signal	I	—
12 - 13	—	—	—	Not Occupied	—	—
14	0.35	YE / BN	2789	Left Front Mirror Motor Common Control	I	—
15 - 17	—	—	—	Not Occupied	—	—
18	0.35	BK / BN	673	Left Outside Rearview Mirror Position Sensor Low Reference	I	—
19	0	Coax Cable	4725	Left Sideview Camera LVDS (Low Voltage Differential Signaling) Coaxial Signal	II	—

A9B Outside Rearview Mirror - Passenger



5253439

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 6098-8386
Service Connector: Service by Harness - See Part Catalog
Description: 19-Way F 1.2 MCON, Coaxial Series(BK)

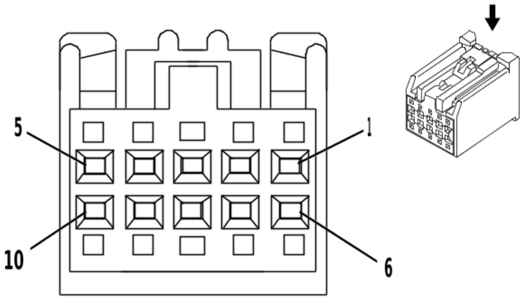
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	No Tool Required	No Tool Required

A9B Outside Rearview Mirror - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / BK	2798	Right Front Mirror Motor Right [+] Left [-] Control	I	—
2	0.35	YE / VT	2796	Right Front Mirror Motor Up [+] Down [-] Control	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	GY	1761	Right Side Object Detection LED Control	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	VT / WH	2800	Right Front Mirror Position Sensor Left [-] Right [+] Signal	I	—
7	0.5	BN / VT	607	Right Outside Rearview Mirror Heater Control	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	BK	4450	Ground	I	—
10	0.35	YE / RD	2799	Right Front Mirror Position Sensor High Reference	I	—
11	0.35	BU / YE	2795	Right Front Mirror Position Sensor Up [+] Down [-] Signal	I	—
12 - 13	—	—	—	Not Occupied	—	—
14	0.35	WH	2797	Right Front Mirror Motor Common Control	I	—
15 - 17	—	—	—	Not Occupied	—	—
18	0.35	BK / GN	675	Right Outside Rearview Mirror Position Sensor Low Reference	I	—
19	0	Coax Cable	4724	Right Sideview Camera LVDS (Low Voltage Differential Signaling) Coaxial Signal	II	—

A10 Inside Rearview Mirror



2180211

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: AIT2PB-10P-2AK
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series(BK)

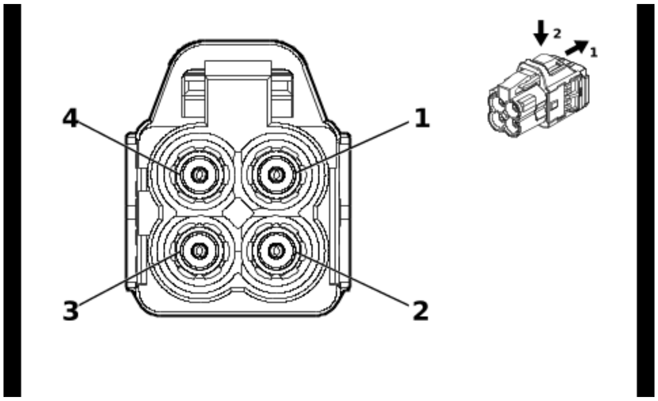
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (L-BU)	J-38125-215A

A10 Inside Rearview Mirror

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / WH	24	Backup Lamp Control	I	—
2	0.35	VT / WH	1139	Run/Crank Ignition 1 Voltage	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.35	BK / WH	1851	Signal Ground	I	—
6 - 10	—	—	—	Not Occupied	—	—

A11 Radio X1



5835118

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX
OEM Connector: 13544819
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 4-Way F Mini Coax Type(BK)

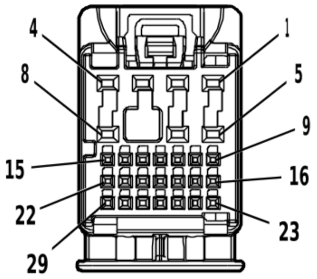
Terminal Part Information

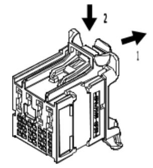
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(AM/FM) Antenna RF Signal	I	—

A11 Radio X2





4578560

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 160014-0011
Service Connector: 13534971
Description: 29-Way F 0.5 NANO, 1.2 MCON, stAK50h Series(GY)

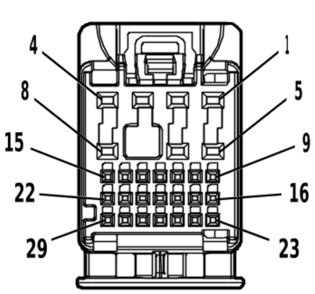
Terminal Part Information

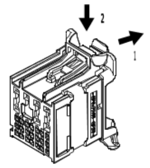
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	84729890	J-35616-12 (BU)	J-38125-215A

A11 Radio X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN	199	Left Rear Speaker [+] Control	II	—
2	0.75	BU	201	Left Front Speaker 1 [+] Control	II	—
3	0.75	YE / BK	117	Right Front Speaker [-] Control 1	II	—
4	0.75	BU / BK	115	Right Rear Speaker [-] Control	II	—
5	0.75	BN / BU	118	Left Front Speaker [-] Control 1	II	—
6	0.75	YE	200	Right Front Speaker 1 [+] Control	II	—
7	—	—	—	Not Occupied	—	—
8	0.75	WH	46	Right Rear Speaker [+] Control	II	—
9	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	—
10	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.35	GN / WH	24	Backup Lamp Control	I	—
14 - 17	—	—	—	Not Occupied	—	—
18	0.35	GN / GY	10652	Radio LIN Bus 1	I	—
19 - 21	—	—	—	Not Occupied	—	—
22	0.35	GY / YE	3885	Forward Collision Alert LED Control	I	—
23	0.35	GY / BK	4787	Day Night LED Control	I	—
24 - 29	—	—	—	Not Occupied	—	—

A11 Radio X3





4496253

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 160014-0014
Service Connector: 13534974
Description: 29-Way F 0.5 NANO, 1.2 MCON, stAK50h Series(BK)

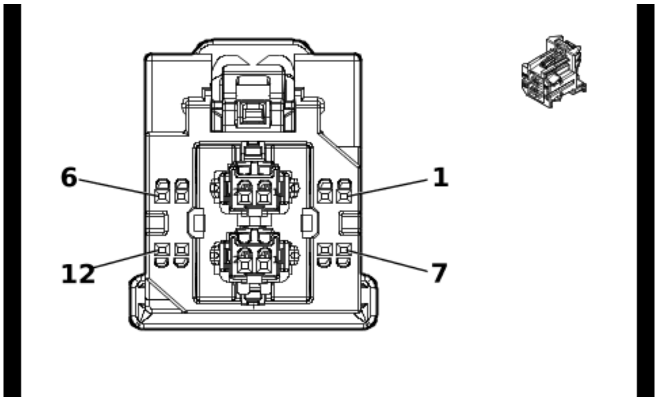
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	84729890	J-35616-12 (BU)	J-38125-215A
III	Not required	No Tool Required	No Tool Required

A11 Radio X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 0.75	RD / WH RD / BN	2040 2240	Battery Positive Voltage Battery Positive Voltage	II II	UQA - UQA
2	0.75	RD / BN	2240	Battery Positive Voltage	II	—
3	0.75	BK / WH	2151	Signal Ground	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.75	BK / WH	2151	Signal Ground	II	—
7	—	—	—	Not Occupied	—	—
8	0.75	GN / BK	116	Left Rear Speaker [-] Control	II	—
9	0.35 0.35	GY / YE BU	5149 655	Voice Recognition Audio Signal Cellular Telephone Microphone Signal	I III	UE1 - UE1
10	0.35 0.35	BK / GY BK / BN	5152 654	Voice Recognition Audio [-] Control Cellular Telephone Microphone Low Reference	I III	UE1 - UE1
11	0.35	VT / YE	7043	Microphone [+] Signal	I	—
12	0.35	BU / BK	7044	Microphone [-] Signal	I	—
13 - 29	—	—	—	Not Occupied	—	—

A11 Radio X4



5902882

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35552567
Service Connector: 86555356
Description: 12-Way F 0.5 CTS, AMEC High Speed Data Series(BK)

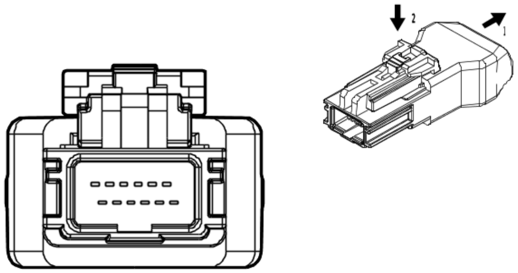
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Service by Cable	No Tool Required	No Tool Required
I	Service by Cable	No Tool Required	No Tool Required

A11 Radio X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU / WH	4758	Ethernet Bus 2 [+]	I	—
2	0.35	BU	4757	Ethernet Bus 2 [-]	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.35	WH	8580	Automotive Audio Bus A2B Serial Data 1 [+]	I	—
6	0.35	GN	8579	Automotive Audio Bus A2B Serial Data 1 [-]	I	—
7 - 8	—	—	—	Not Occupied	—	—
9	0.1	GN	7210	Ethernet Bus 4 [-]	I	—
10	0.1	WH	7211	Ethernet Bus 4 [+]	I	—
11 - 12	—	—	—	Not Occupied	—	—

A11 Radio X5



4584321

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13598058
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 12-Way M 2.0 HSAL-2 Series(GY)

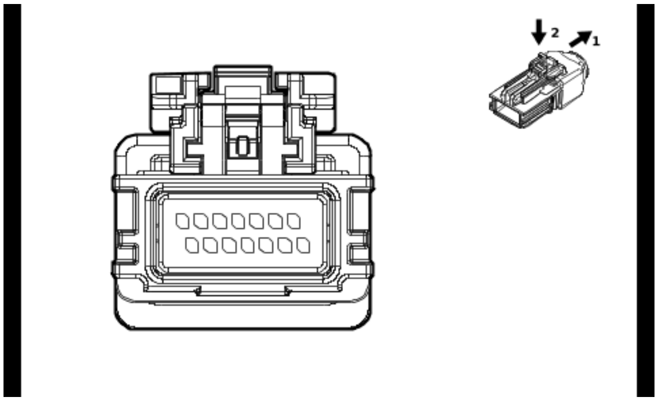
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	(Infotainment) Infotainment Display Signal	I	—

A11 Radio X7 (IVD)



6002723

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13535353
Service Connector: Not Available
Description: 14-Way M 2.0 HSAL-2 Series(BK)

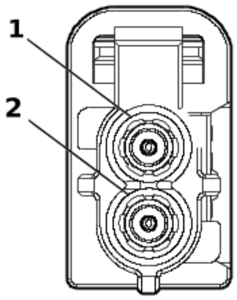
Terminal Part Information

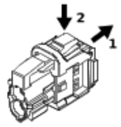
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X7 (IVD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
BK	0	—	USB	Universal Serial Bus Cable	I	—

A11 Radio X8 (UXA)





6154796

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX
OEM Connector: 13544814
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Mini Coax Type(BU)

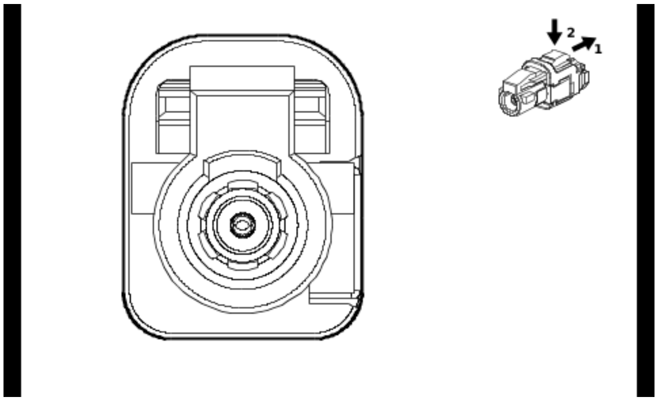
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X8 (UXA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	Video Processing Module Coaxial Video Signal	I	—

A11 Radio X9



5926227

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX
OEM Connector: 13544788
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Mini Coax Type(BK)

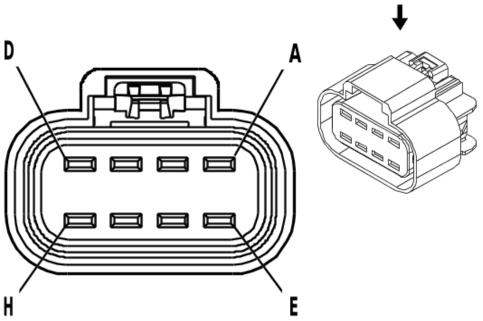
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A11 Radio X9

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	V2X (Vehicle to Infrastructure/Vehicle Communication) Antenna 2 Coaxial Signal	I	—

A16 Transfer Case Four Wheel Drive Actuator (NP0 / NQH)



646372

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13538370
Service Connector: 19369184
Description: 8-Way F 280 GT Series, Sealed(BK)

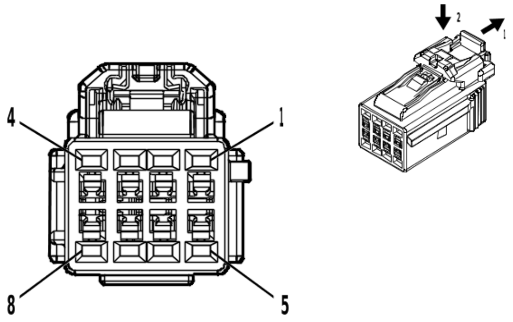
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

A16 Transfer Case Four Wheel Drive Actuator (NP0 / NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2.5	YE / GY	1552	Transfer Case Motor Clockwise Control	I	—
B	0.75	BU	8013	Transfer Case Lock Solenoid Control 2	I	—
C	0.75	YE / BN	1569	Transfer Case Lock Solenoid Valve Control	I	—
D	2.5	YE / VT	1553	Transfer Case Motor Counter Clockwise Control	I	—
E	0.5	YE	7474	Incremental Encoder Direction Signal	I	—
F	0.5	BU / GY	7473	Incremental Encoder Impulse Signal	I	—
G	0.5	WH / GN	7475	Incremental Encoder Sensor Voltage Reference	I	—
H	0.5	VT	7476	Incremental Encoder Sensor Low Reference	I	—

A22 Radio Control X1



5086387

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 6098-8443
Service Connector: 84613126
Description: 8-Way F 1.2 Series(BK)

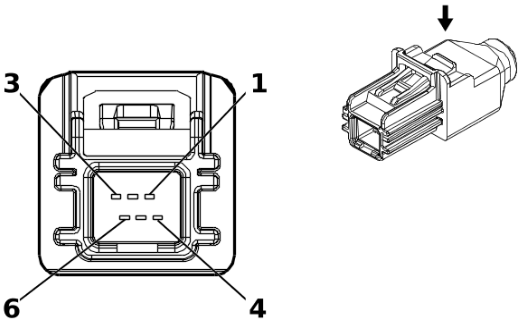
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

A22 Radio Control X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / BN	1440	Battery Positive Voltage	I	—
2 - 7	—	—	—	Not Occupied	—	—
8	0.35	BK / WH	2151	Signal Ground	I	—

A22 Radio Control X2



5278781

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13522803
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 6-Way M HSAL-2 Series(GY)

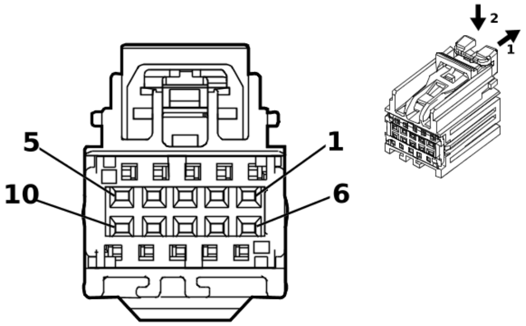
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

A22 Radio Control X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	(Infotainment) Infotainment Display Signal	I	—

A23LR Rear Side Door Latch - Left



4622549

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Left
OEM Connector: 7289-5068-60
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series(GN)

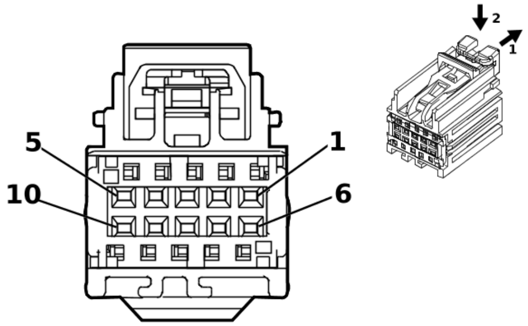
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

A23LR Rear Side Door Latch - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	747	Left Rear Door Ajar Switch Signal	I	—
2	—	—	—	Not Occupied	—	—
3	0.75	BK	1150	Ground	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.75	BU / YE	1091	Left Rear Door Lock Actuator Lock Control	I	—
8	0.75	WH	2679	Lock Actuators Unlock Control 1	I	—
9 - 10	—	—	—	Not Occupied	—	—

A23P Front Side Door Latch - Passenger



4622549

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 7289-5068-60
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series(GN)

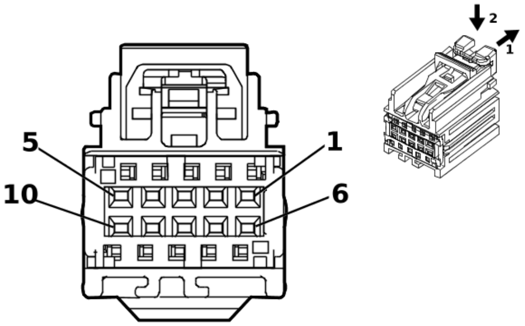
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

A23P Front Side Door Latch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	VT	4259	Right Front Door Lock Status Signal	I	—
3	0.35	BK	1250	Ground	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	GY	746	Right Front Door Ajar Switch Signal	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.75	GY / BK	2680	Lock Actuators Unlock Control 2	I	—
9	0.75	YE / GN	2682	Right Front Door Lock Actuator Lock Control	I	—
10	—	—	—	Not Occupied	—	—

A23RR Rear Side Door Latch - Right



4622549

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Right
OEM Connector: 7289-5068-60
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series(GN)

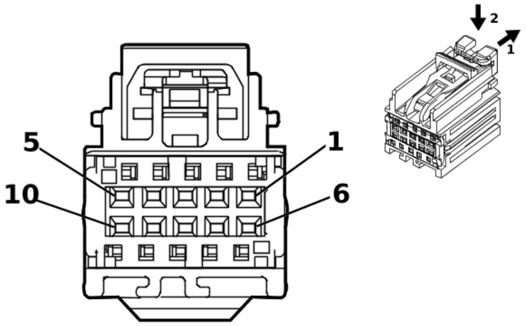
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

A23RR Rear Side Door Latch - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.75	BK	1250	Ground	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	GY	748	Right Rear Door Ajar Switch Signal	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.75	GY / BK	2680	Lock Actuators Unlock Control 2	I	—
9	0.75	VT / WH	1094	Right Rear Door Lock Actuator Lock Control	I	—
10	—	—	—	Not Occupied	—	—

A23SL Front Side Door Latch Striker - Left



4622549

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 7289-5068-60
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series(GN)

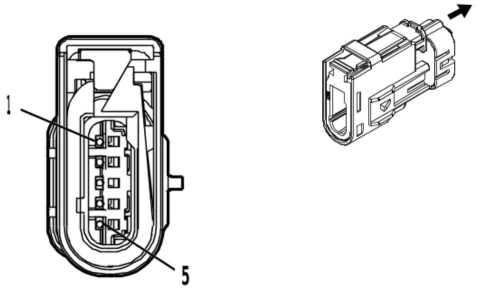
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

A23SL Front Side Door Latch Striker - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	745	Left Front Door Ajar Switch Signal	I	—
2	0.35	VT / GY	126	Left Front Door Open Switch Signal	I	—
3	0.75	BK	1150	Ground	I	—
4	0.35	WH / VT	4258	Left Front Door Lock Status Signal	I	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.75	GY	2681	Left Front Door Lock Actuator Lock Control	I	—
8	0.75	WH	2679	Lock Actuators Unlock Control 1	I	—
9 - 10	—	—	—	Not Occupied	—	—

A24D Front Side Door Outside Handle - Left



4808321

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: SRVWSB-04A-BS
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 1.2 Series, Sealed(NA)

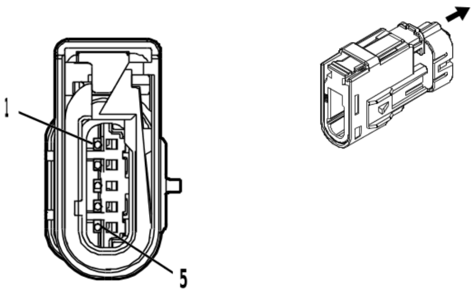
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

A24D Front Side Door Outside Handle - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU	2675	Left Front Exterior Door Handle Switch Unlock Signal	II	—
2	0.5	VT	4301	Passive Entry Left Antenna Signal High	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	VT / GY	4302	Passive Entry Left Antenna Signal Low	I	—
5	0.35	BK	1150	Ground	II	—

A24P Front Side Door Outside Handle - Right



4808321

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: SRVWSB-04A-BS
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M 1.2 Series, Sealed(NA)

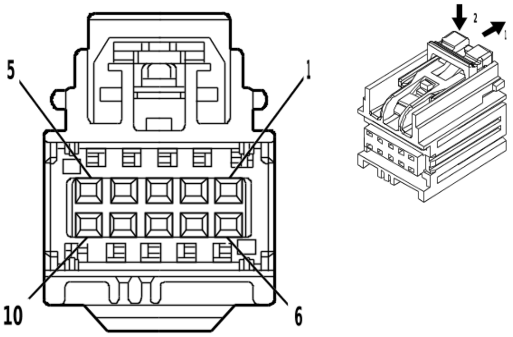
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

A24P Front Side Door Outside Handle - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY / VT	2676	Right Front Door Exterior Switch Unlock Signal	II	—
2	0.5	GN / YE	4303	Passive Entry Right Antenna Signal High	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	GN / BK	4304	Passive Entry Right Antenna Signal Low	I	—
5	0.35	BK	2250	Ground	II	—

A26 Heater and Air Conditioning User Interface Control - Front



4891168

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 7289-4885
Service Connector: 13509649
Description: 10-Way F 0.64 Kaizen Series(NA)

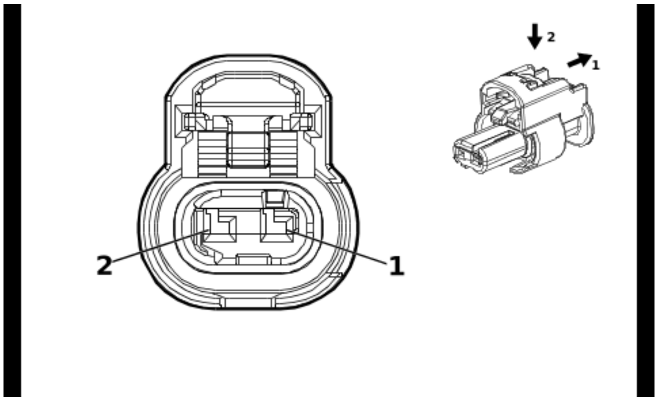
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300629	J-35616-64B (L-BU)	J-38125-215A

A26 Heater and Air Conditioning User Interface Control - Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / BN	1440	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	—
4	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	GY / GN	4636	HVAC System Enable Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	—
9	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	—
10	0.35	BK / WH	2151	Signal Ground	I	—

A99 Pickup Box Endgate Latch



4649903

Connector Part Information

Harness Type: Liftgate Jumper Wiring Harness
OEM Connector: 1-2296694-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

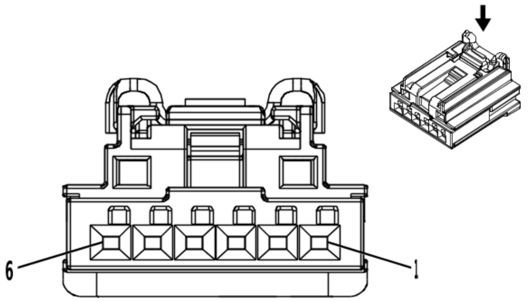
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

A99 Pickup Box Endgate Latch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / VT	2691	Rear Closure Actuator Lock Control	I	—
2	0.5	GY / BK	2680	Lock Actuators Unlock Control 2	I	—

A103 Roof Console (DD8)



4145138

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 2035363-2
Service Connector: 19356359
Description: 6-Way F 0.64 Generation Y Series(BK)

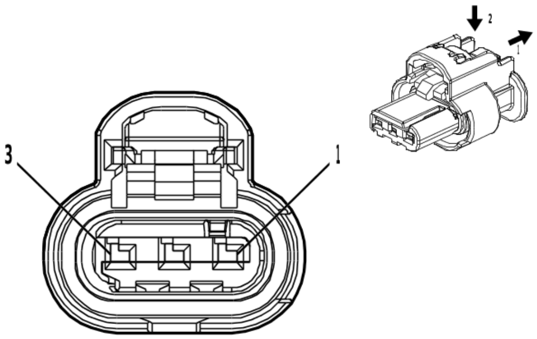
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

A103 Roof Console (DD8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	WH / BN	6815	Inadvertent Load Control	I	—
3	0.35	GY	157	Interior Lamp Control	I	—
4	0.35	BK	4250	Ground	I	—
5	0.35	GY	156	Courtesy Lamp Switch Signal	I	—
6	0.35	GY / GN	328	Interior Lamp Defeat Switch Signal	I	—

B1 Air Conditioning Refrigerant Pressure Sensor



4581126

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: 86792094
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

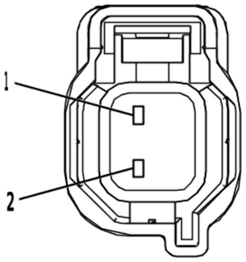
Terminal Part Information

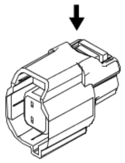
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B1 Air Conditioning Refrigerant Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—
2	0.5	GN	380	Air Conditioning Refrigerant Pressure Sensor Signal	I	—
3	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—

B5LF Front Wheel Speed Sensor - Left





2900396

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34062-0026
Service Connector: 19366856
Description: 2-Way F 1.5 Series, Sealed(L-GY)

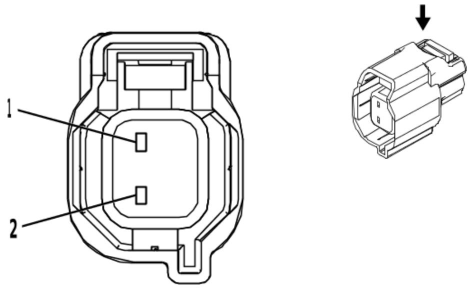
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5LF Front Wheel Speed Sensor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / WH	7064	Left Front Wheel Speed Sensor Control	I	—
2	0.5	GY	830	Left Front Wheel Speed Sensor Signal	I	—

B5LR Rear Wheel Speed Sensor - Left



2900396

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34062-0026
Service Connector: 19366856
Description: 2-Way F 1.5 Series, Sealed(L-GY)

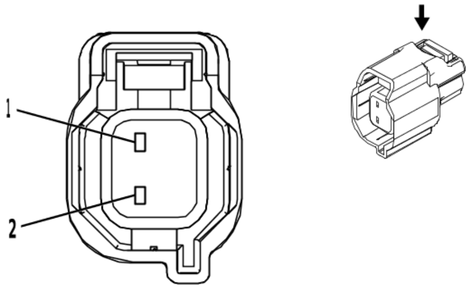
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5LR Rear Wheel Speed Sensor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BK	7127	Left Rear Wheel Speed Sensor Control	I	—
2	0.5	BU	884	Left Rear Wheel Speed Sensor Signal	I	—

B5RF Front Wheel Speed Sensor - Right



2900396

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34062-0026
Service Connector: 19366856
Description: 2-Way F 1.5 Series, Sealed(L-GY)

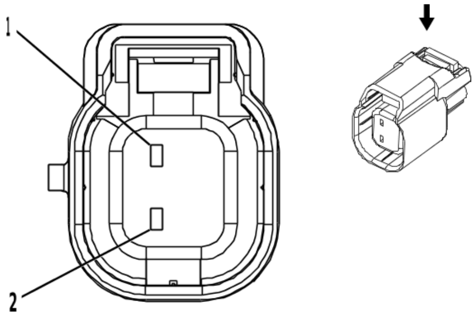
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5RF Front Wheel Speed Sensor - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BN	7065	Right Front Wheel Speed Sensor Control	I	—
2	0.5	YE	872	Right Front Wheel Speed Sensor Signal	I	—

B5RR Rear Wheel Speed Sensor - Right



4115616

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34062-0046
Service Connector: 19366860
Description: 2-Way F 1.5 Series, Sealed(BK)

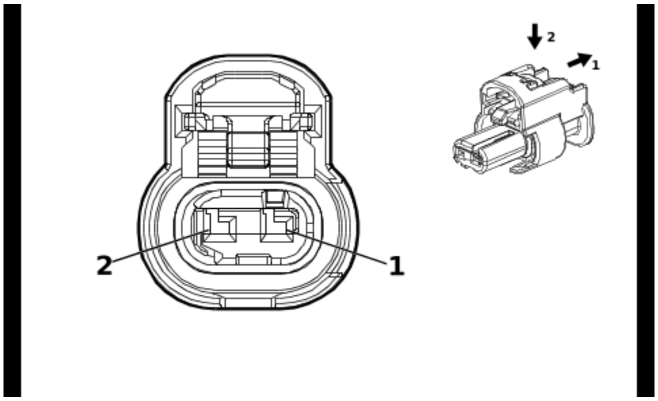
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B5RR Rear Wheel Speed Sensor - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / YE	7128	Right Rear Wheel Speed Sensor Control	I	—
2	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	I	—

B9 Ambient Air Temperature Sensor



4649903

Connector Part Information

Harness Type: Radiator Shutter Wiring Harness
OEM Connector: 13512365
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

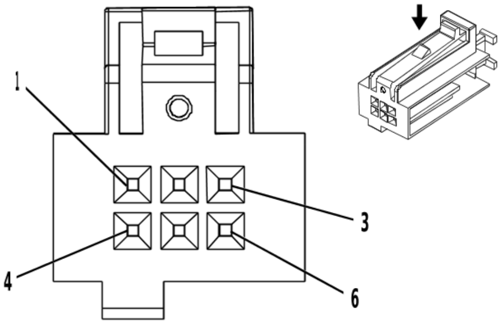
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B9 Ambient Air Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BU / GY	636	Ambient Air Temperature Sensor Signal	I	—
2	—	BK / GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—

B10D Sun Load and Ambient Light and Security Indicator Sensor



2220563

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 965413-1
Service Connector: 85587649
Description: 6-Way F 0.64 Micro-Quadlock Series(BK)

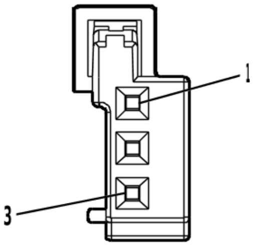
Terminal Part Information

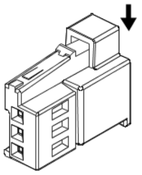
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B10D Sun Load and Ambient Light and Security Indicator Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY	590	Driver Solar Sensor Signal	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	WH / BU	278	Ambient Light Sensor Signal	I	—
4	0.35	BU / WH	734	Inside Air Temperature Sensor Signal	I	—
5	0.35	GY	728	Security Indicator Control	I	—
6	0.35	BK / YE	407	Sensor Low Reference	I	—

B12B Automatic Transmission Fluid Pressure Sensor





4829276

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13511013
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series(BU)

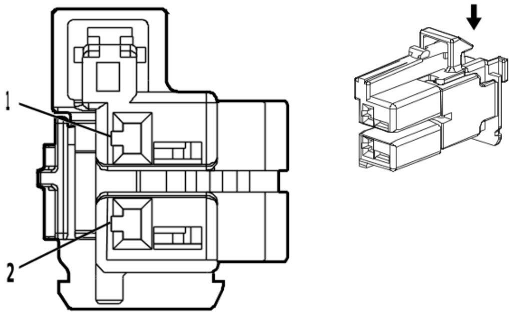
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B12B Automatic Transmission Fluid Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY / RD	10817	Lubricant Circuit Pressure Sensor 5 Volt Reference	I	—
2	—	BU / BK	10819	Lubricant Circuit Pressure Sensor Low Reference	I	—
3	—	GN / YE	10816	Lubricant Circuit Pressure Sensor Signal	I	—

B13 Automatic Transmission Fluid Temperature Sensor



4672650

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 13514136
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series(BN)

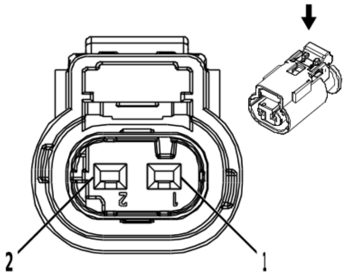
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B13 Automatic Transmission Fluid Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BN / WH	585	Transmission Fluid Temperature Sensor Signal	I	—
2	—	BK / BN	586	Transmission Fluid Temperature Sensor Low Reference	I	—

B20A Brake Fluid Level Indicator Switch



2717066

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 10010337
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

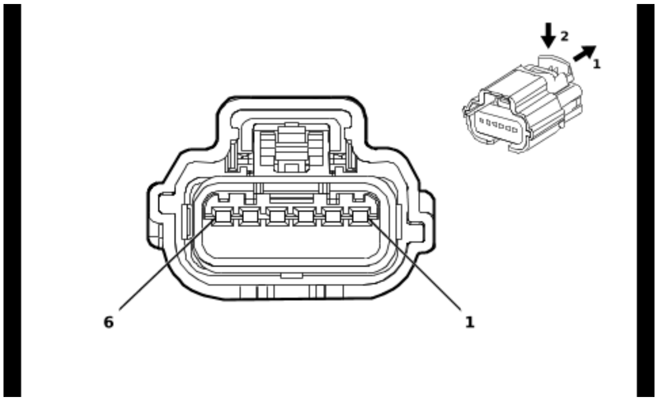
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B20A Brake Fluid Level Indicator Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / GY	333	Brake Fluid Level Signal	I	—
2	0.5	BK / WH	2251	Signal Ground	I	—

B22 Brake Pedal Position Sensor



4773396

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 31404-7810
Service Connector: 84683650
Description: 6-Way F 64 Series, Sealed(NA)

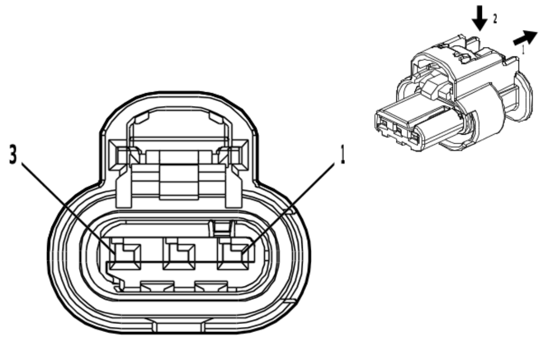
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B22 Brake Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / BN	5360	Brake Apply Sensor Low Reference	I	—
2	0.35	WH	5359	Brake Apply Sensor Control	I	—
3	0.35	BU / YE	5361	Brake Apply Sensor Signal	I	—
4	0.5	WH / GN	5380	Brake Position Sensor Signal	I	—
5	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—
6	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—

B23E Camshaft Position Sensor - Exhaust



4581126

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: 86792094
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

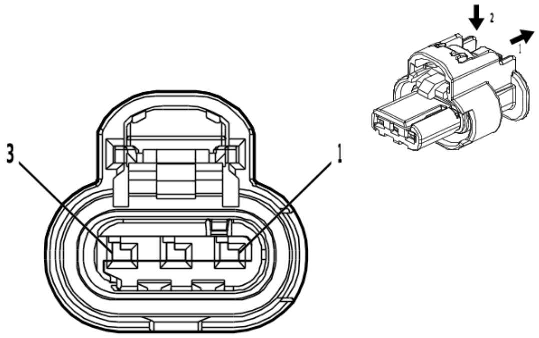
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B23E Camshaft Position Sensor - Exhaust

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / YE	5297	Exhaust Camshaft Position Sensor 1 Voltage Reference	I	—
2	0.5	BK / GY	5296	Exhaust Camshaft Position Sensor Low Reference 1	I	—
3	0.5	VT / BK	5273	Exhaust Camshaft Position Sensor 1	I	—

B23F Camshaft Position Sensor - Intake



4581126

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: 86792094
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

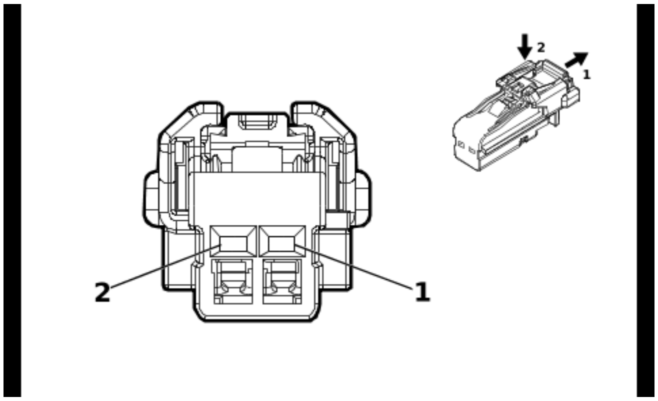
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B23F Camshaft Position Sensor - Intake

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	I	—
2	0.5	BK / GN	5301	Intake Camshaft Position Sensor Low Reference 1	I	—
3	0.5	YE / VT	5275	Intake Camshaft Position Sensor 1	I	—

B24 Mobile Telephone Microphone



4115691

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 6098-8988
Service Connector: 87816612
Description: 2-Way F 1.2 MCON Series(BK)

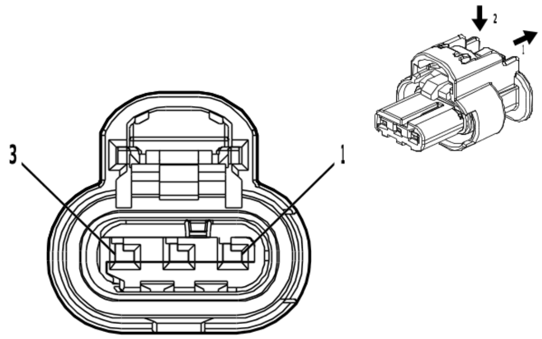
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B24 Mobile Telephone Microphone

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / BN	654	Cellular Telephone Microphone Low Reference	I	—
2	0.35	BU	655	Cellular Telephone Microphone Signal	I	—

B26 Crankshaft Position Sensor



4778903

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296695-2
Service Connector: 86792095
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

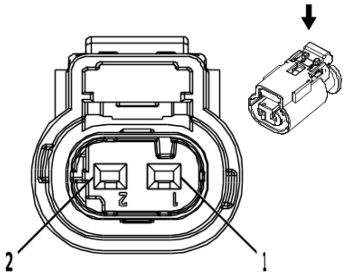
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B26 Crankshaft Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	6270	Crankshaft Position Sensor Voltage	I	—
2	0.5	BK / VT	6272	Crankshaft Position Sensor Low Reference	I	—
3	0.5	GN	6271	Crankshaft Position Sensor Signal	I	—

B34A Engine Coolant Temperature Sensor 1



2717066

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010337
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

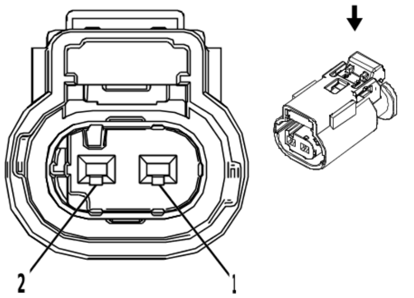
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B34A Engine Coolant Temperature Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / BU	2408	Engine Inlet Coolant Temperature Signal	I	—
2	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—

B34B Engine Coolant Temperature Sensor 2



2830969

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010339
Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed(D-GY)

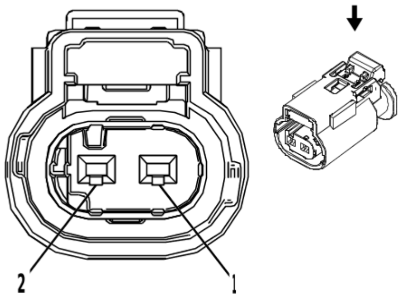
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B34B Engine Coolant Temperature Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	2988	Engine Outlet Coolant Temperature Signal	I	—
2	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—

B34E Engine Coolant Temperature Sensor 5



2830969

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010339
Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed(D-GY)

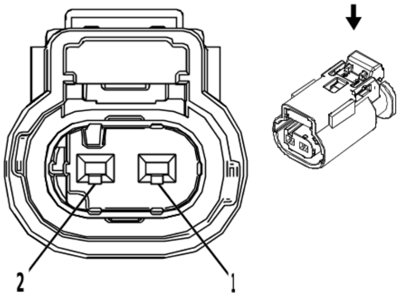
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B34E Engine Coolant Temperature Sensor 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / YE	8938	Engine Integrated Exhaust Manifold Temperature Signal	I	—
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—

B34F Engine Coolant Temperature Sensor 6



2830969

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010339
Service Connector: 13587321
Description: 2-Way F 1.2 Multilock Series, Sealed(D-GY)

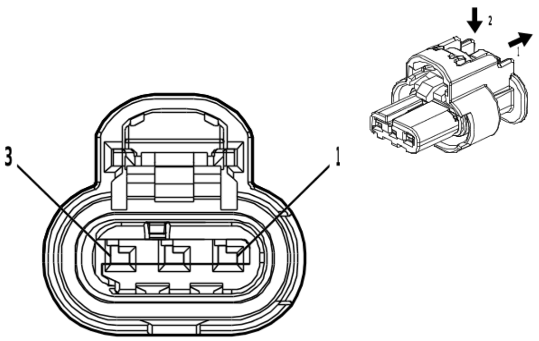
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B34F Engine Coolant Temperature Sensor 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / VT	2404	Engine Block Coolant Temperature Signal	I	—
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—

B36 Engine Oil Temperature Sensor



4994602

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296695-3
Service Connector: 19371199
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

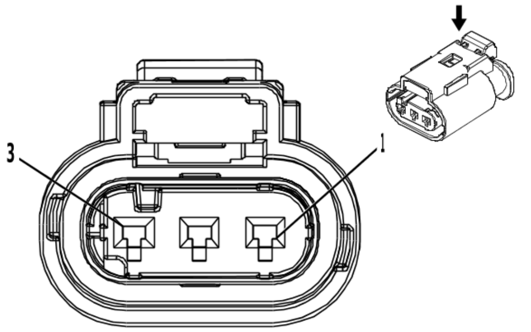
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B36 Engine Oil Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—
2	0.5	BN / BU	357	Oil Temperature Sensor Signal	I	—
3	0.5	VT	7485	Engine Oil Temperature Sensor 2 Signal	I	—

B37B Engine Oil Pressure Sensor



3240107

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010344
Service Connector: 19301717
Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B37B Engine Oil Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
3	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—

B39 Air Conditioning Evaporator Air Temperature Sensor

—

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 1205-9247
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

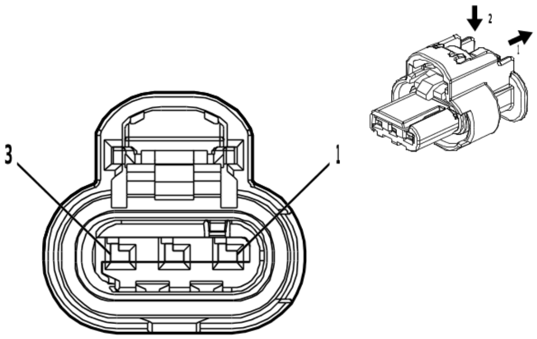
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B39 Air Conditioning Evaporator Air Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK / YE	407	Sensor Low Reference	I	—
B	—	GY	6137	Air Conditioning Evaporator Temperature Sensor Signal	I	—

B47 Fuel Pressure Sensor



4581126

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: 86792094
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

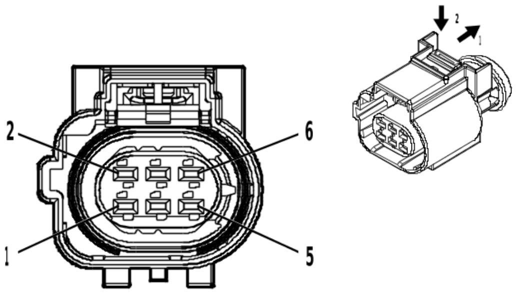
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B47 Fuel Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / RD	7445	Fuel Line Pressure Sensor 5V Reference	I	—
2	0.5	BK / YE	7447	Fuel Pressure Sensor Low Reference	I	—
3	0.5	BU / WH	7446	Fuel Pressure Sensor Signal	I	—

B52A Heated Oxygen Sensor 1



5086832

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 2-2309220-8
Service Connector: 84613131
Description: 6-Way F 1.5 MCP Series, Sealed(GY)

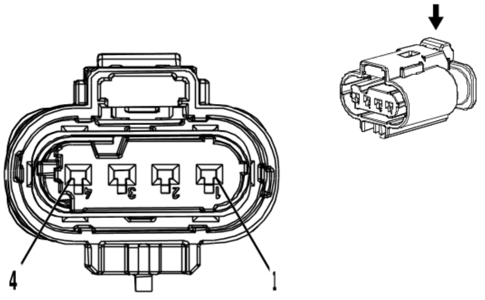
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B52A Heated Oxygen Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / WH	6933	HO2S Pump Current Signal	I	—
2	0.5	BN	6934	HO2S Ground	I	—
3	0.5	GY / WH	3113	HO2S Heater Low Control Bank 1 Sensor 1	I	—
4	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
5	0.5	GN	6935	HO2S Pump Current Trim Signal	I	—
6	0.5	YE / GY	6936	HO2S Signal	I	—

B52B Heated Oxygen Sensor 2



4036496

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10021265
Service Connector: 19330904
Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

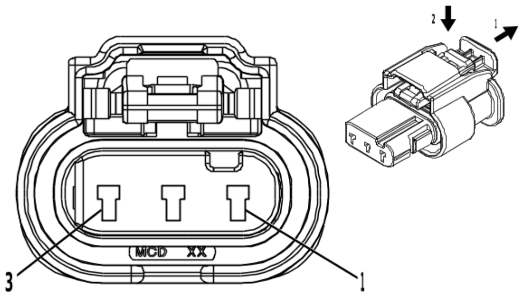
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B52B Heated Oxygen Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / WH	3122	HO2S Heater Low Control Bank 1 Sensor 2	I	—
2	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	I	—
3	0.5	WH / YE	3121	HO2S Low Signal Bank 1 Sensor 2	I	—
4	0.5	BN	3120	HO2S High Signal Bank 1 Sensor 2	I	—

B55 Engine Compartment Cover Switch



Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 34900-3120
Service Connector: 19368220
Description: 3-Way F 1.2 MCON-LL Series, Sealed(BK)

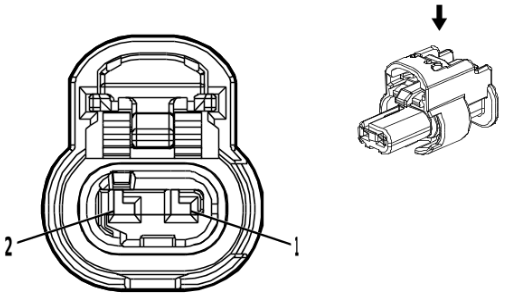
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B55 Engine Compartment Cover Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	4063	Hood Status A Signal	I	—
2	0.5	BN / GN	4064	Hood Status B Signal	I	—
3	0.75	BK	2250	Ground	I	—

B58L Airbag Front End Discriminating Sensor - Left



4690744

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 1-2296694-3
Service Connector: 19366871
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

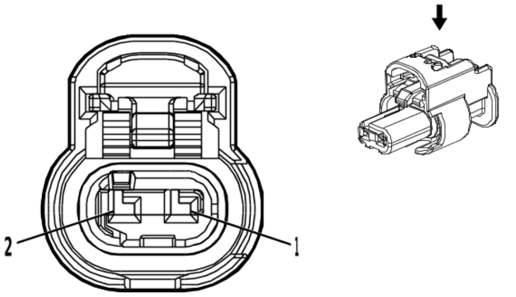
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B58L Airbag Front End Discriminating Sensor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / YE	354	Left Front Impact Discriminating Sensor Signal	I	—
2	0.5	BK / OG	5045	Left Front Impact Discriminating Sensor Low Reference	I	—

B58R Airbag Front End Discriminating Sensor - Right



4690744

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 1-2296694-3
Service Connector: 19366871
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

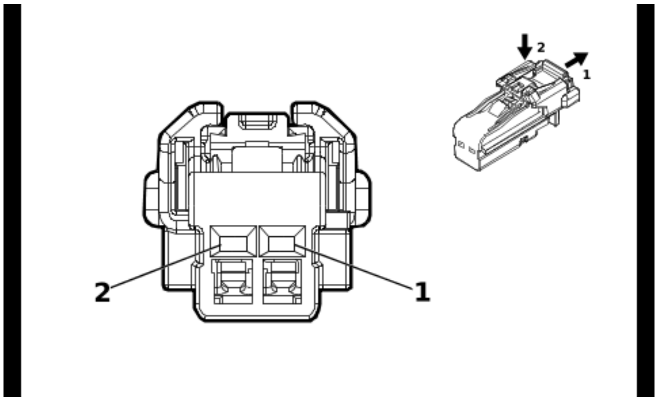
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B58R Airbag Front End Discriminating Sensor - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GN	1409	Right Front Impact Discriminating Sensor Signal	I	—
2	0.5	BK / OG	5600	Right Front Impact Discriminating Sensor Low Reference	I	—

B61P Seat Belt Tension Sensor - Passenger



4115691

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 6098-8988
Service Connector: 87816612
Description: 2-Way F 1.2 MCON Series(BK)

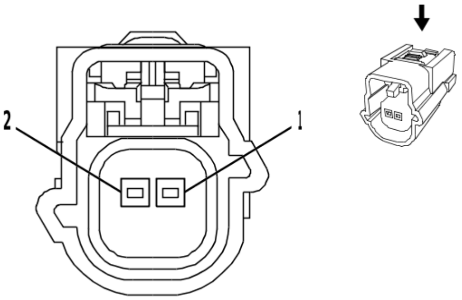
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B61P Seat Belt Tension Sensor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / OG	3946	Passenger Automatic Locking Retractor Switch Low Reference	I	—
2	0.5	OG / BN	3947	Passenger Automatic Locking Retractor Switch Signal	I	—

B63LF Airbag Side Impact Sensor - Left Front Door



2179777

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 54390242
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed(GY)

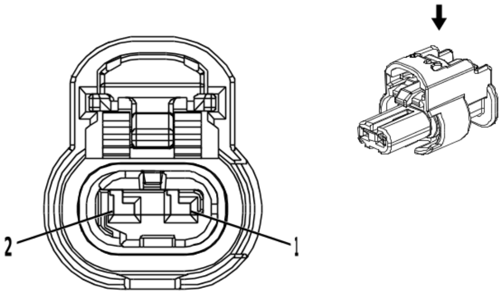
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63LF Airbag Side Impact Sensor - Left Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GN	2132	Left Front Side Impact Sensor Signal	I	—
2	0.5	BK / OG	6628	Left Front Side Impact Sensor Low Reference	I	—

B63LRG Airbag Side Impact Rear Sensor - Left



4335931

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-2296694-2
Service Connector: 19366843
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

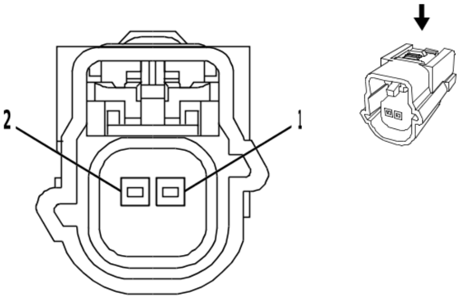
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B63LRG Airbag Side Impact Rear Sensor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / BU	6622	Left Rear Side Impact Sensor Signal	I	—
2	0.5	BK / OG	6623	Left Rear Side Impact Sensor Low Reference	I	—

B63RF Airbag Side Impact Sensor - Right Front Door



2179777

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 54390242
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed(GY)

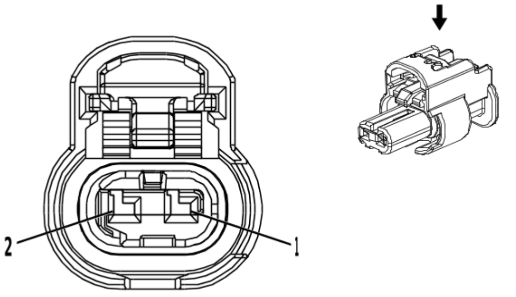
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B63RF Airbag Side Impact Sensor - Right Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / OG	2134	Right Front Side Impact Sensor Signal	I	—
2	0.5	BK / OG	6629	Right Front Side Impact Sensor Low Reference	I	—

B63RRG Airbag Side Impact Rear Sensor - Right



4335931

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-2296694-2
Service Connector: 19366843
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

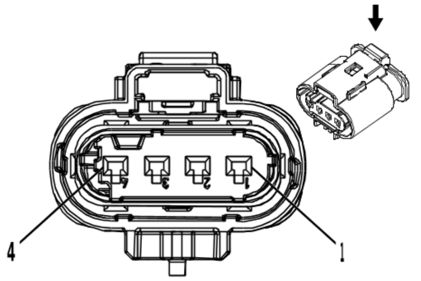
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B63RRG Airbag Side Impact Rear Sensor - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / WH	6626	Right Rear Side Impact Sensor Signal	I	—
2	0.5	BK / OG	6627	Right Rear Side Impact Sensor Low Reference	I	—

B65 Manifold Absolute Pressure and Intake Air Temperature Sensor



2717079

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010346
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

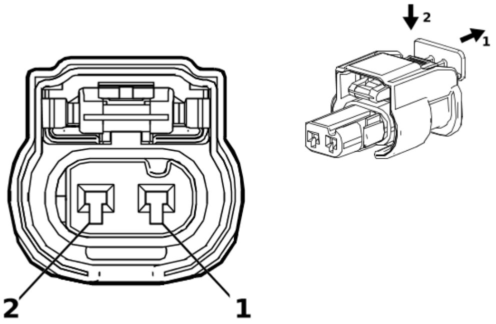
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B65 Manifold Absolute Pressure and Intake Air Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BU	7329	Pre-Throttle Air Temperature Signal	I	—
2	0.5	GY / RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
3	0.5	BK / GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
4	0.5	GN / WH	432	Manifold Absolute Pressure Sensor Signal	I	—

B68A Knock Sensor 1



3960139

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 34900-2120
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

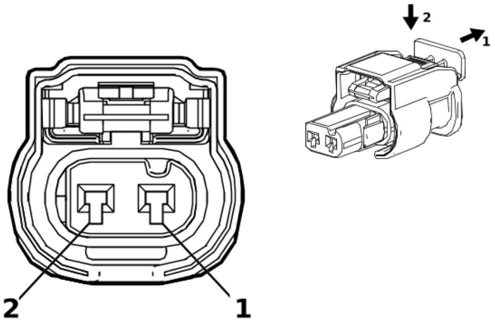
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B68A Knock Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	VT / GY	496	Knock Sensor 1 Signal	I	—
2	—	BK / YE	1716	Knock Sensor Low Reference 1	I	—

B68B Knock Sensor 2



3960139

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 34900-2120
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

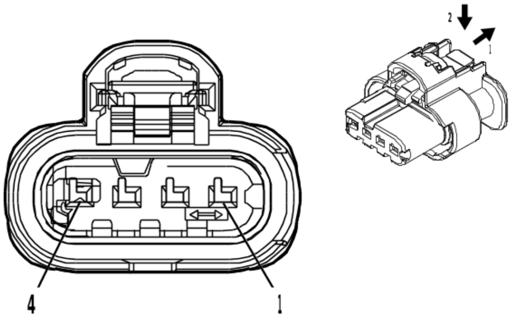
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B68B Knock Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	WH / GY	1876	Knock Sensor 2 Signal	I	—
2	—	BK / GY	2303	Knock Sensor Low Reference 2	I	—

B75 Mass Airflow Sensor



4934614

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296696-2
Service Connector: 85519071
Description: 4-Way F 1.2 MCON-CB Series, Sealed(BK)

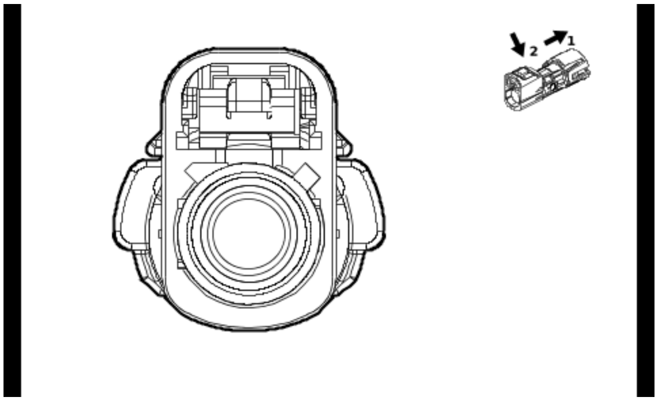
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B75 Mass Airflow Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	I	—
2	0.5	BU	492	Mass Air Flow Sensor Signal	I	—
3	0.5	GN / WH	4622	Engine Control Module LIN Bus 2	I	—
4	0.75	BK / WH	151	Signal Ground	I	—

B87 Rearview Driver Information Camera (UV2)



5758030

Connector Part Information

Harness Type: Liftgate Jumper Wiring Harness COAX
OEM Connector: 13529782
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(BK)

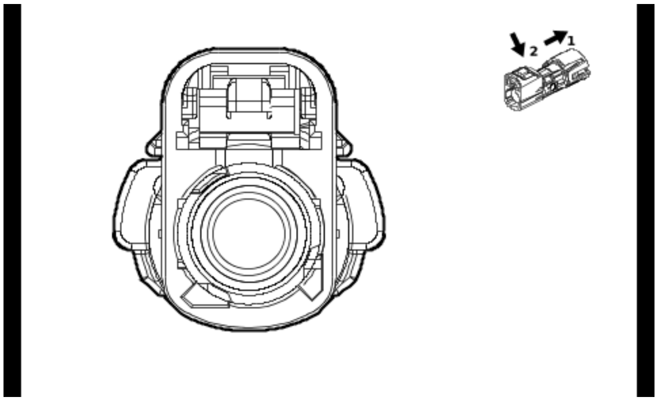
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B87 Rearview Driver Information Camera (UV2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	Rear Vision Camera Coaxial Video Signal	I	—

B87 Rearview Driver Information Camera (UVB)



5757455

Connector Part Information

Harness Type: Liftgate Jumper Wiring Harness COAX
OEM Connector: 13529793
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(OG)

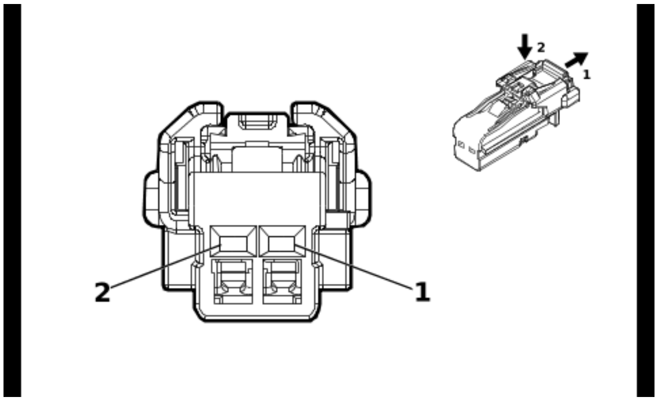
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B87 Rearview Driver Information Camera (UVB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	Rear Vision Camera Coaxial Video Signal	I	—

B88D Seat Belt Switch - Driver



4115691

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 6098-8988
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series(BK)

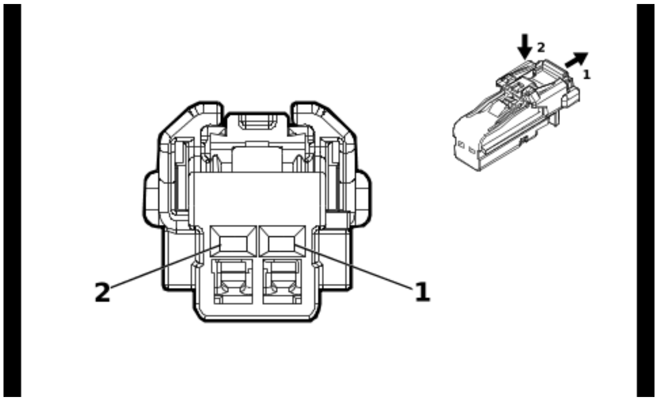
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B88D Seat Belt Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / OG	1363	Driver Seat Belt Switch Low Reference	I	—
2	0.5	OG / BN	238	Driver Seat Belt Switch Signal	I	—

B88P Seat Belt Switch - Passenger



4115691

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 6098-8988
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series(BK)

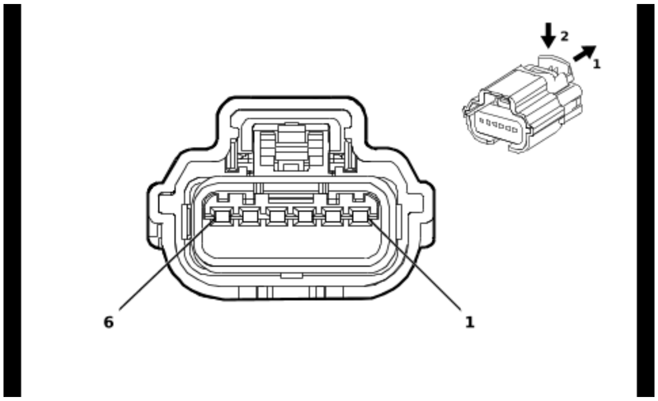
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B88P Seat Belt Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / OG	1363	Driver Seat Belt Switch Low Reference	I	—
2	0.5	OG / VT	1362	Passenger Seat Belt Switch Signal	I	—

B107 Accelerator Pedal Position Sensor



5157678

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 31404-7110
Service Connector: 84773558
Description: 6-Way F 64 Series, Sealed(BK)

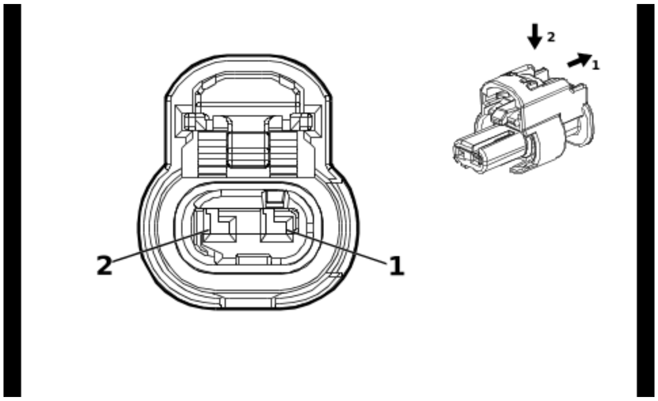
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B107 Accelerator Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / RD	1274	Accelerator Pedal Position 5V Reference 2	I	—
2	0.5	GN / WH	1162	Accelerator Pedal Position Signal 2	I	—
3	0.5	BK / VT	1272	Accelerator Pedal Position Low Reference 2	I	—
4	0.5	BK / BU	1271	Accelerator Pedal Position Low Reference 1	I	—
5	0.5	YE / WH	1161	Accelerator Pedal Position Signal 1	I	—
6	0.5	WH / RD	1164	Accelerator Pedal Position 5V Reference 1	I	—

B110 Battery Monitor Module X1



4649903

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-2296694-1
Service Connector: 85519075
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

B110 Battery Monitor Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / YE	2855	Body Control Module LIN Bus 9	I	—
2	0.75	RD / YE	2340	Battery Positive Voltage	I	—

B110 Battery Monitor Module X2

—

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: BBS64596
Service Connector: Not Available
Description: 1-Way

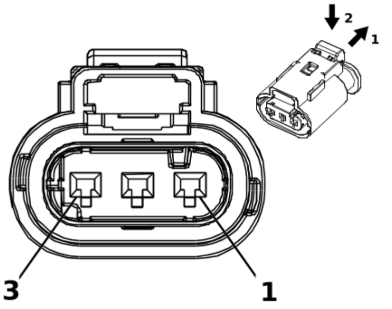
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B110 Battery Monitor Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK	250	Ground	I	—

B111 Turbocharger/Supercharger Boost Pressure Sensor



2717069

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 10010341
Service Connector: 84601390
Description: 3-Way F 1.2 Multilock Series, Sealed(BK)

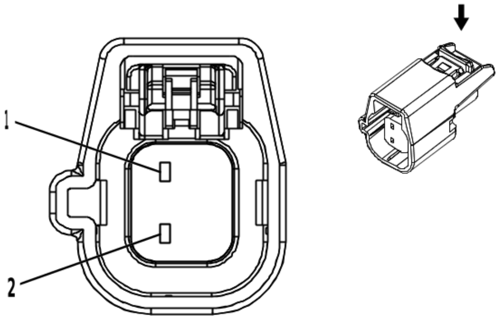
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B111 Turbocharger/Supercharger Boost Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
3	0.5	YE / WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—

B118 Windshield Washer Solvent Container Level Sensor



3958652

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 13593220
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(L-GY)

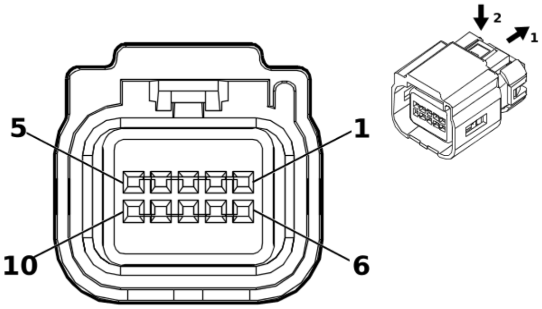
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B118 Windshield Washer Solvent Container Level Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	VT	185	Low Washer Fluid Indicator Control	I	—
2	—	BK	2250	Ground	I	—

B137B Power Steering Shaft Torque/Position Sensor



3608469

Connector Part Information

Harness Type: Power Steering Control Module Wiring Harness - Shaft Sensor
OEM Connector: 13587225
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Kaizen Series, Sealed(GY)

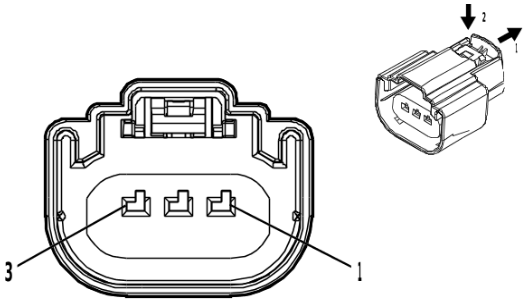
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B137B Power Steering Shaft Torque/Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BU / WH	8367	Handwheel Channel A Torque Pressure Sensor 1 SENT Signal	I	—
2	—	BN / RD	8366	Handwheel Channel A High Reference	I	—
3	—	BK / GN	8370	Handwheel Channel A Low Reference	I	—
4	—	GY / RD	8371	Handwheel Channel B High Reference	I	—
5	—	GN	8372	Handwheel Channel B Torque Pressure Sensor 1 SENT Signal	I	—
6	—	VT	8368	Handwheel Channel A Torque Pressure Sensor 2 SENT Signal	I	—
7	—	WH	8369	Handwheel Channel A Angle Position Sensor SENT Signal	I	—
8	—	BK / GY	8375	Handwheel Channel B Low Reference	I	—
9	—	GN / BU	8374	Handwheel Channel B Angle Position Sensor SENT Signal	I	—
10	—	YE / GN	8373	Handwheel Channel B Torque Pressure Sensor 2 SENT Signal	I	—

B139 Transfer Case Two/Four Wheel Drive Actuator Position Sensor (NP0 / NQH)



4569745

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 160073-3105
Service Connector: 19179750
Description: 3-Way F 1.5 MX Series, Sealed(BK)

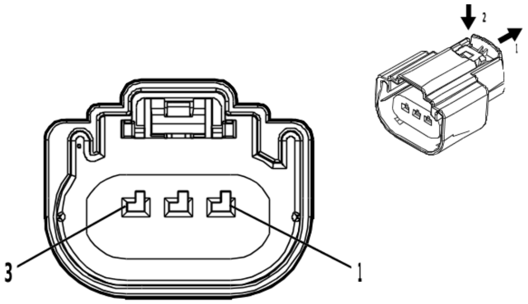
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B139 Transfer Case Two/Four Wheel Drive Actuator Position Sensor (NP0 / NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / RD	7477	Gear Position Sensor 5V Reference	I	—
2	0.5	WH / GN	7479	Rotary Position Sensor Signal	I	—
3	0.5	YE / BK	7478	Gear Position Sensor Low Reference	I	—

B150 Fuel Tank Pressure Sensor



4589538

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 160073-3106
Service Connector: 84569854
Description: 3-Way F 1.5 MX Series, Sealed(GY)

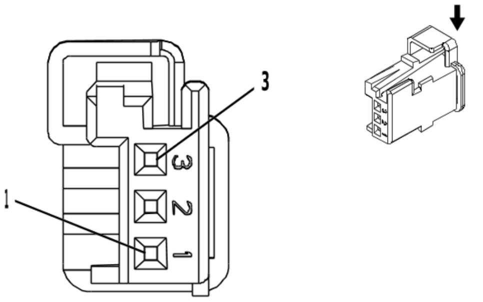
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

B150 Fuel Tank Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / WH	890	Fuel Tank Pressure Sensor Signal	I	—
2	0.5	BK / BN	6284	Fuel Tank Pressure Sensor Low Reference	I	—
3	0.5	YE / RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—

B160 Inside Air Moisture and Windshield Temperature Sensor



4218883

Connector Part Information

Harness Type: Inside Rearview Mirror Wiring Harness - Jumper
OEM Connector: 13593004
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Micro-Quadlock Series(BK)

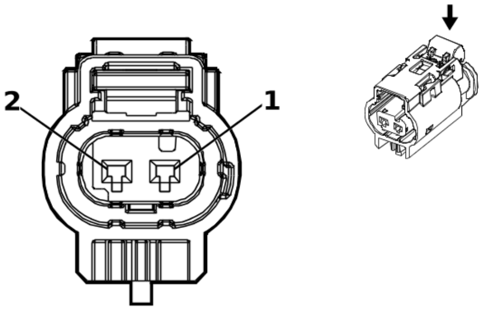
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B160 Inside Air Moisture and Windshield Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	VT / GN	39	Run/Crank Ignition 1 Voltage	I	—
2	—	BK / WH	1851	Signal Ground	I	—
3	—	GN / WH	4115	Body Control Module LIN Bus 5	I	—

B172LF Front Disc Brake Pad Wear Sensor - Left



3747581

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 10094234
Service Connector: 84727362
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

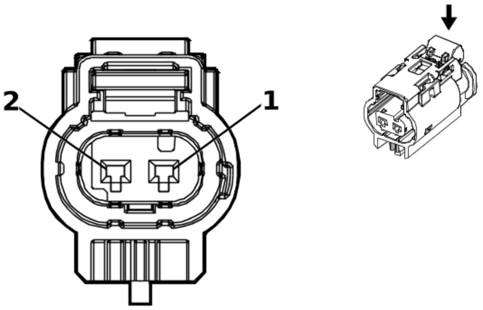
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B172LF Front Disc Brake Pad Wear Sensor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / BU	1602	Front Brake Pad Wear Sensor Signal	I	—
2	0.5	BK / WH	2051	Signal Ground	I	—

B172LR Rear Disc Brake Pad Wear Sensor - Left



3747581

Connector Part Information

Harness Type: Chassis Rear Wiring Harness Extension Harness
OEM Connector: 10094234
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

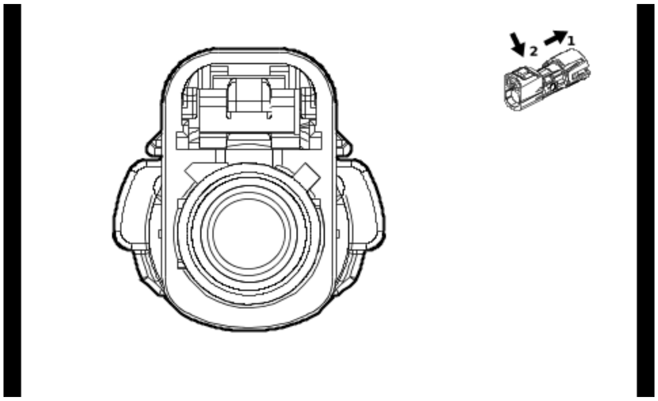
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B172LR Rear Disc Brake Pad Wear Sensor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN / YE	1616	Rear Brake Pad Wear Sensor Signal	I	—
2	0.75	BK / WH	1751	Signal Ground	I	—

B174G Front View Driver Information Camera - Grille



5758030

Connector Part Information

Harness Type: Front View Camera Switch Wiring Harness COAX
OEM Connector: 13529782
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(BK)

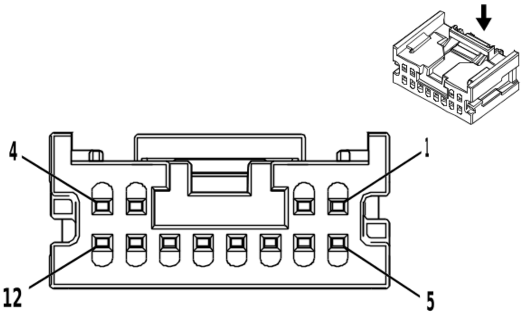
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B174G Front View Driver Information Camera - Grille

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	Front Vision Camera 1 Coaxial Video Signal	I	—

B174W Front View Camera - Windshield



3824362

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 34824-5124
Service Connector: 13507121
Description: 12-Way F Mini 50 Series(BK)

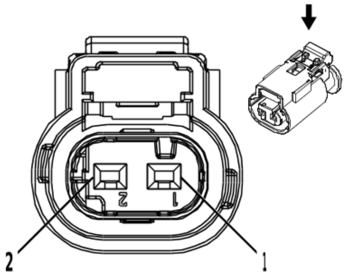
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19333221	EL-35616-58 (BK)	EL-38125-58

B174W Front View Camera - Windshield

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / WH	1851	Signal Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	RD / YE	240	Battery Positive Voltage	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	—
6	0.35	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	—
7	0.35	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	—
8	0.35	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	—
9 - 12	—	—	—	Not Occupied	—	—

B203 Radiator Coolant Temperature Sensor



2717066

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010337
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

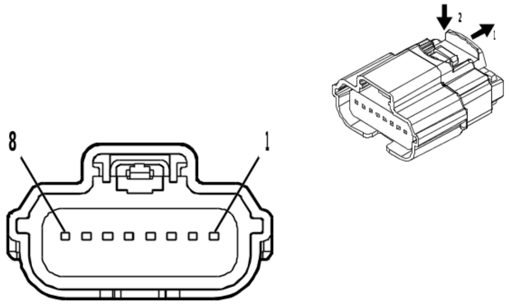
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B203 Radiator Coolant Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / BK	3000	Coolant Temperature Sensor 2 Signal	I	—
2	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	I	—

B218L Side Obstacle Detection Control Module - Left (UFB / UKI)



4708234

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 31404-9110
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 64 Series, Sealed(BK)

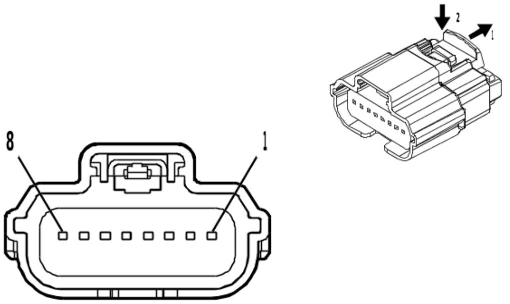
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B218L Side Obstacle Detection Control Module - Left (UFB / UKI)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	4087	Private Serial Data Side Obstacle Detection CAN Bus [-] Serial Data	I	—
2	0.5	BU / VT	4088	Private Serial Data Side Obstacle Detection CAN Bus [+] Serial Data	I	—
3	0.5	BK / WH	751	Signal Ground	I	—
4	0.5	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	—
5	0.5	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	—
6	0.5	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	I	—
7	0.5	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	I	—
8	0.5	RD / BN	4940	Battery Positive Voltage	I	—

B218R Side Obstacle Detection Control Module - Right (UFB / UKI)



4708234

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 31404-9532
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 64 Series, Sealed(BK)

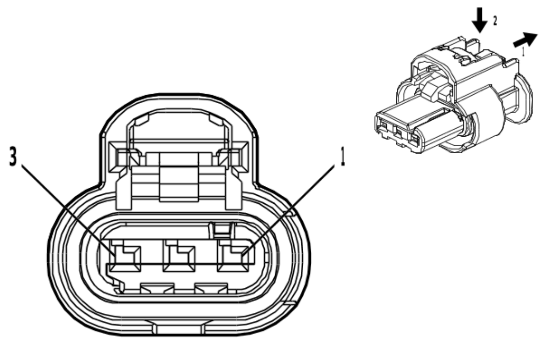
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

B218R Side Obstacle Detection Control Module - Right (UFB / UKI)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	4087	Private Serial Data Side Obstacle Detection CAN Bus [-] Serial Data	I	—
2	0.5	BU / VT	4088	Private Serial Data Side Obstacle Detection CAN Bus [+] Serial Data	I	—
3	0.5	BK / WH	751	Signal Ground	I	—
4	—	—	—	Not Occupied	—	—
5	0.5	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	—
6	0.5	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	RD / BN	4940	Battery Positive Voltage	I	—

B306E Parking Assist Alarm Sensor - Rear Left Outer (UD7)



4581126

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

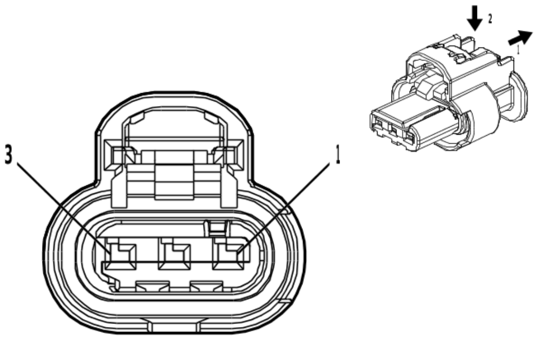
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B306E Parking Assist Alarm Sensor - Rear Left Outer (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / WH	2374	Object Sensor Voltage Reference	I	—
2	0.5	YE	2375	Left Rear Outer Parking Assist Sensor Signal	I	—
3	0.5	BK / GY	2379	Object Sensor Low Reference	I	—

B306F Parking Assist Alarm Sensor - Rear Left Middle (UD7)



4581126

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

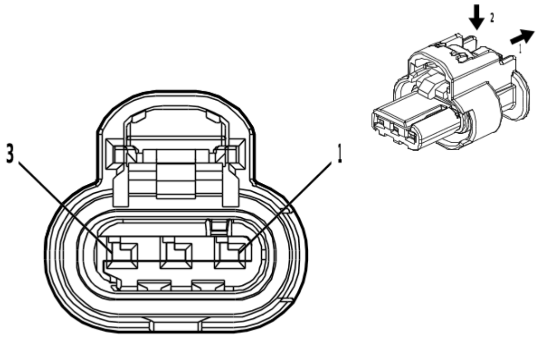
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B306F Parking Assist Alarm Sensor - Rear Left Middle (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / WH	2374	Object Sensor Voltage Reference	I	—
2	0.5	YE / BU	2376	Left Rear Middle Parking Assist Sensor Signal	I	—
3	0.5	BK / GY	2379	Object Sensor Low Reference	I	—

B306G Parking Assist Alarm Sensor - Rear Right Middle (UD7)



4581126

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

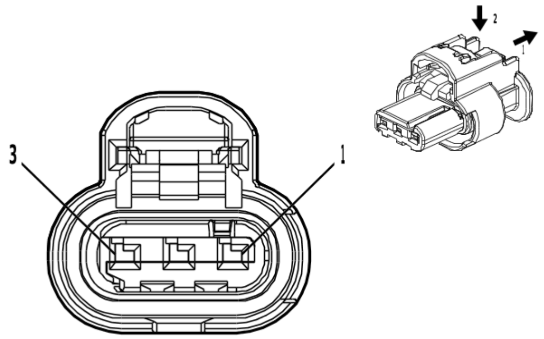
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B306G Parking Assist Alarm Sensor - Rear Right Middle (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / WH	2374	Object Sensor Voltage Reference	I	—
2	0.5	YE / WH	2377	Right Rear Middle Parking Assist Sensor Signal	I	—
3	0.5	BK / GY	2379	Object Sensor Low Reference	I	—

B306H Parking Assist Alarm Sensor - Rear Right Outer (UD7)



4581126

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

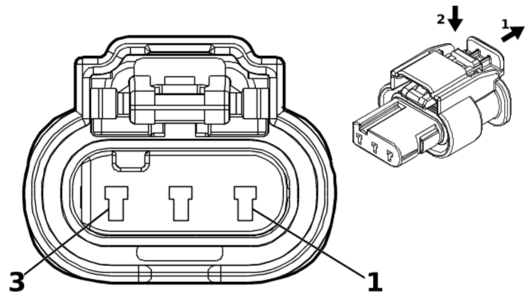
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B306H Parking Assist Alarm Sensor - Rear Right Outer (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / WH	2374	Object Sensor Voltage Reference	I	—
2	0.5	YE / VT	2378	Right Rear Outer Parking Assist Sensor Signal	I	—
3	0.5	BK / GY	2379	Object Sensor Low Reference	I	—

B310 Fuel Pressure and Temperature Sensor



5420917

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 34900-3127
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 MCON-LL Series, Sealed(GY)

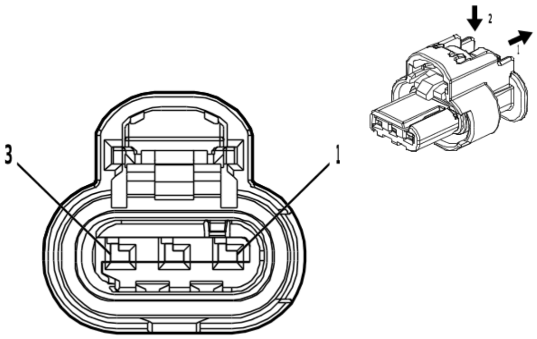
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B310 Fuel Pressure and Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK / GN	580	Engine Control Sensors Low Reference 2	I	—
2	—	BU / WH	2918	Fuel Rail Pressure Sensor Signal	I	—
3	—	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—

B321 Crankcase Pressure Sensor



4581126

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: 86792094
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

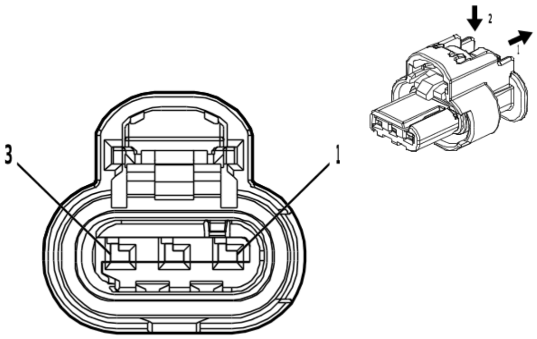
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B321 Crankcase Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / GY	3926	Crankcase Differential Pressure Sensor Signal	I	—
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
3	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—

B338A Intake Camshaft Profile Sleeve Position Sensor 1



4581126

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: 86792094
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

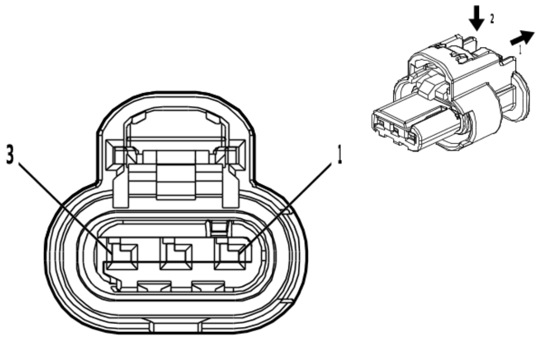
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B338A Intake Camshaft Profile Sleeve Position Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—
2	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	I	—
3	0.5	VT / WH	3744	Camshaft Intake Lobe Axial Position Signal 1	I	—

B338B Intake Camshaft Profile Sleeve Position Sensor 2



4581126

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: 86792094
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

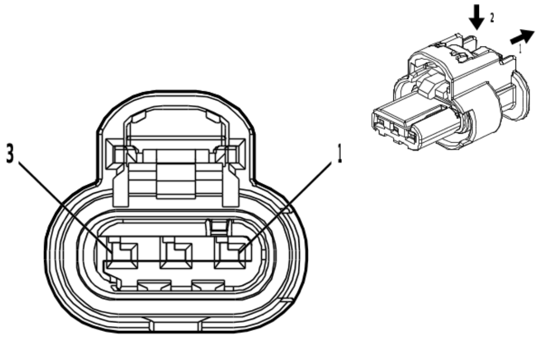
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B338B Intake Camshaft Profile Sleeve Position Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—
2	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	I	—
3	0.5	VT / GN	3745	Camshaft Intake Lobe Axial Position Signal 2	I	—

B339A Exhaust Camshaft Profile Sleeve Position Sensor 1



4581126

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: 86792094
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

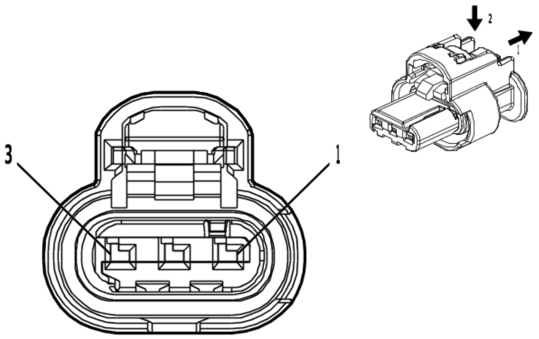
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B339A Exhaust Camshaft Profile Sleeve Position Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—
2	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	I	—
3	0.5	YE / WH	3746	Camshaft Exhaust Lobe Axial Position Signal 1	I	—

B339B Exhaust Camshaft Profile Sleeve Position Sensor 2



4581126

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296695-1
Service Connector: 86792094
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

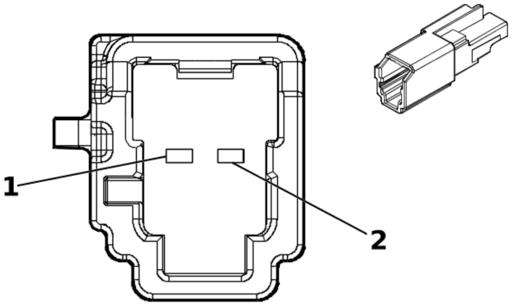
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

B339B Exhaust Camshaft Profile Sleeve Position Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—
2	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	I	—
3	0.5	YE / GN	3747	Camshaft Exhaust Lobe Axial Position Signal 2	I	—

B355 Communication Interface Module Microphone



5360948

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 6098-9073
Service Connector: 84847259
Description: 2-Way M 1.2 MCON Series(GY)

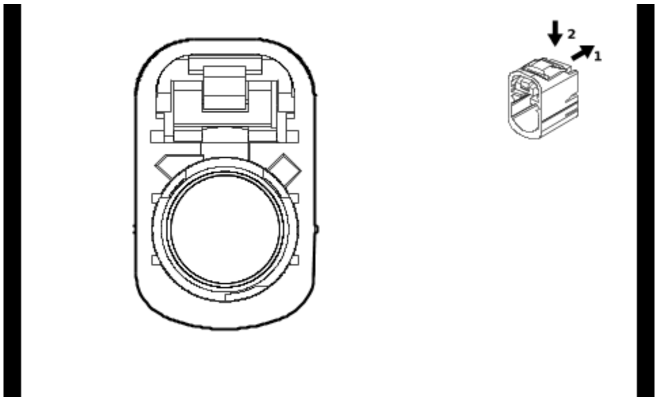
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-17 (L-GN)	No Tool Required

B355 Communication Interface Module Microphone

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU / BK	7044	Microphone [-] Signal	I	—
2	0.35	VT / YE	7043	Microphone [+] Signal	I	—

B384 Rearview Underbody Camera (UXA)



5920539

Connector Part Information

Harness Type: Rearview Camera Wiring Harness COAX
OEM Connector: 13537644
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(BK)

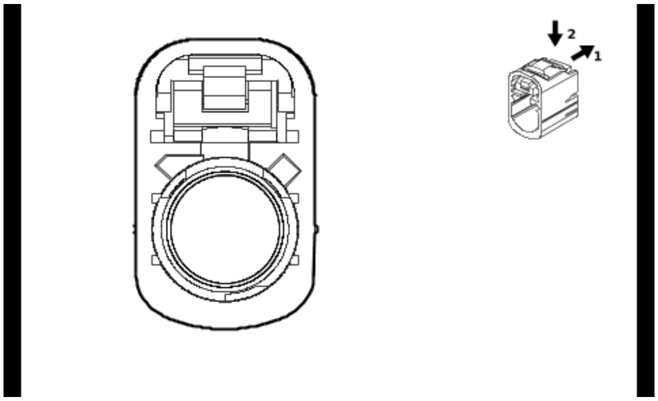
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B384 Rearview Underbody Camera (UXA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	Front Vision Camera 1 Coaxial Video Signal	I	—

B385 Front View Underbody Camera (UXA)



5920539

Connector Part Information

Harness Type: Rearview Camera Wiring Harness
OEM Connector: 13537644
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(BK)

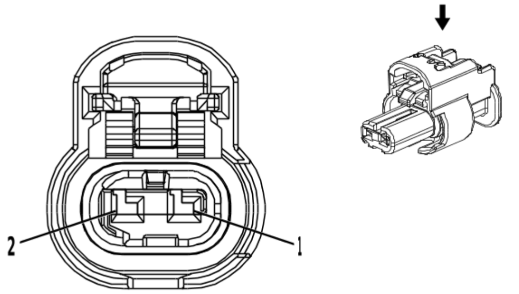
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

B385 Front View Underbody Camera (UXA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	(PDR) Front Vision Camera #2	I	—

E2LFW Front Side Marker Lamp - Left Wheel Opening Molding (Z88)



4335931

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-2296694-2
Service Connector: 19366843
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

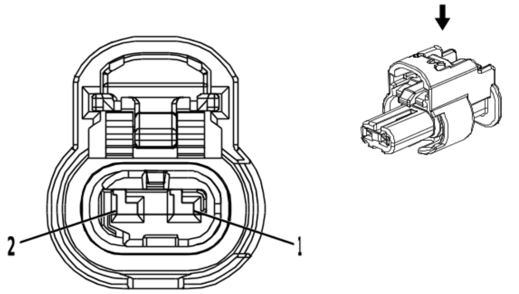
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

E2LFW Front Side Marker Lamp - Left Wheel Opening Molding (Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	3750	Ground	I	—
2	0.5	BN / GN	4246	Identification Lamp Control	I	—

E2LRW Rear Side Marker Lamp - Left Wheel Opening Molding (Z88)



4335931

Connector Part Information

Harness Type: Chassis Rear Wiring Harness
OEM Connector: 1-2296694-2
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

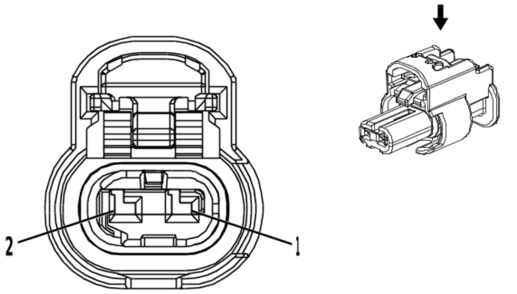
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

E2LRW Rear Side Marker Lamp - Left Wheel Opening Molding (Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	850	Ground	I	—
2	0.5	BN / GN	4246	Identification Lamp Control	I	—

E2RFW Front Side Marker Lamp - Right Wheel Opening Molding (Z88)



4335931

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 1-2296694-2
Service Connector: 19366843
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

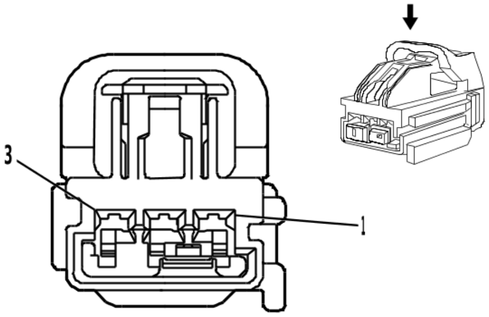
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

E2RFW Front Side Marker Lamp - Right Wheel Opening Molding (Z88)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	2050	Ground	I	—
2	0.5	BN / GN	4246	Identification Lamp Control	I	—

E6 High Mount Stop Lamp



1787799

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 7283-3440-40
Service Connector: 86825460
Description: 3-Way F 1.5 Kaizen Series(L-GY)

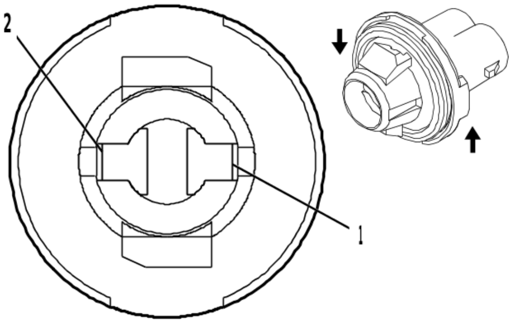
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

E6 High Mount Stop Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / VT	1430	Exterior Courtesy Lamp Control	I	—
2	0.5	BU / BK	1053	Center High Mounted Stop Lamp Control 3	I	—
3	0.5	BK	550	Ground	I	—

E7L Rear License Plate Lamp - Left



5153536

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 15324946
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Lamp Socket Wedge Base, Type W-2(D-GY)

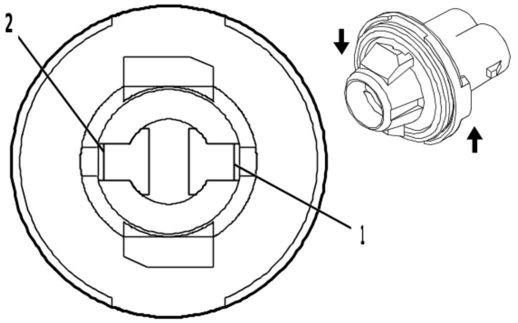
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E7L Rear License Plate Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / YE	6846	Rear License Plate Lamp Control	I	—
2	0.35	BK	750	Ground	I	—

E7R Rear License Plate Lamp - Right



5153536

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 15324946
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Lamp Socket Wedge Base, Type W-2(D-GY)

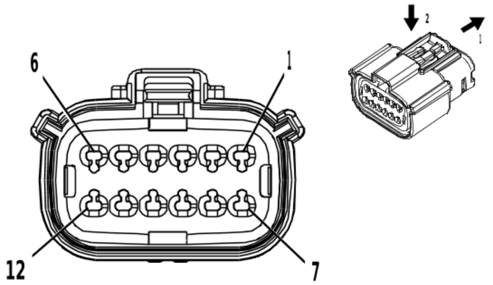
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E7R Rear License Plate Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / YE	6846	Rear License Plate Lamp Control	I	—
2	0.35	BK	750	Ground	I	—

E13LA Front Headlamp - Left



2871860

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 33472-1256
Service Connector: 19352907
Description: 12-Way F 1.5 MX Series, Sealed(BK)

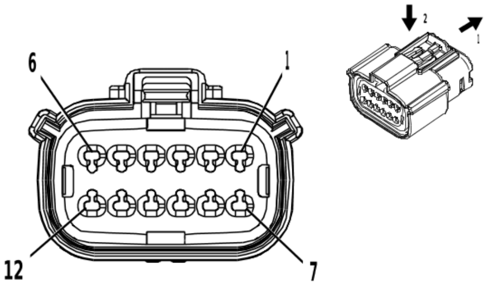
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	85528055	J-35616-2A (GY)	J-38125-217

E13LA Front Headlamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	150	Ground	I	—
2	0.75	RD / WH	640	Battery Positive Voltage	I	—
3	0.5	YE	712	Left Headlamp Low Beam Control	I	—
4	0.5	WH	711	Left Headlamp High Beam Control	I	—
5	0.5	GY / BU	7538	Left Front DRL Control	I	—
6	0.5	WH / YE	1254	Left Front Park Lamp Control	I	—
7	0.5	BU / WH	1314	Left Front Turn Signal Lamp Control	I	—
8	0.5	VT / BK	6568	Front Turn Signal Lamp Feedback Signal	I	—
9 - 12	—	—	—	Not Occupied	—	—

E13RA Front Headlamp - Right



2871860

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 33472-1256
Service Connector: 19352907
Description: 12-Way F 1.5 MX Series, Sealed(BK)

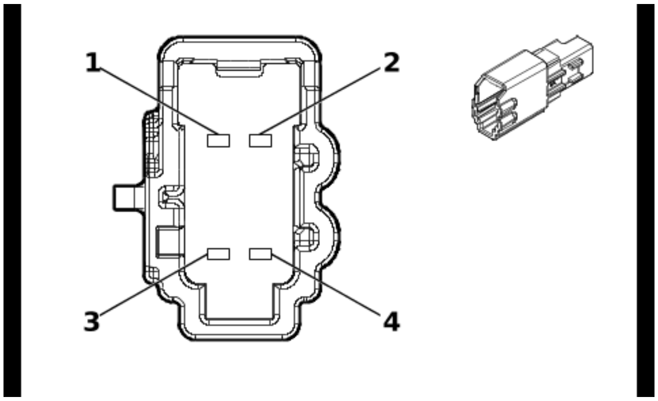
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	85528055	J-35616-2A (GY)	J-38125-217

E13RA Front Headlamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	250	Ground	I	—
2	0.75	RD / YE	740	Battery Positive Voltage	I	—
3	0.5	YE	312	Right Headlamp Low Beam Control	I	—
4	0.5	WH	311	Right Headlamp High Beam Control	I	—
5	0.5	BU / BN	7539	Right Front DRL Control	I	—
6	0.5	BU / GN	1253	Right Front Park Lamp Control	I	—
7	0.5	GN / VT	1315	Right Front Turn Signal Lamp Control	I	—
8	0.5	WH / YE	7545	Right Front Turn Signal Lamp Feedback Signal	I	—
9 - 12	—	—	—	Not Occupied	—	—

E14A Front Seat Back Heater - Driver (KA1)



5423974

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 6098-9049
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 MCON Series(GY)

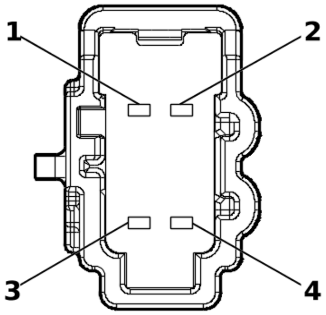
Terminal Part Information

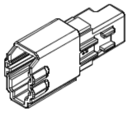
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

E14A Front Seat Back Heater - Driver (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN / VT	2077	Driver Seat Heating Element Control	I	—
2	0.5	BU	2425	Driver Seat Back Heating Temperature Sensor Signal	II	—
3	0.5	BK / YE	2080	Driver Heated Seat Thermistor Low Reference	II	—
4	0.75	BN / BK	2078	Driver Seat Heating Element Low Reference	I	—

E14B Front Seat Cushion Heater - Driver (KA1)





5360963

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 6098-9046
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 MCON Series(BK)

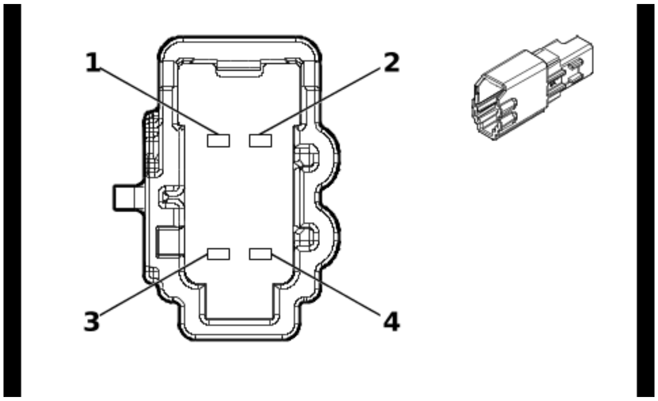
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

E14B Front Seat Cushion Heater - Driver (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN / VT	2077	Driver Seat Heating Element Control	I	—
2	0.5	YE / GY	2079	Driver Seat Heating Temperature Sensor Signal	II	—
3	0.5	BK / YE	2080	Driver Heated Seat Thermistor Low Reference	II	—
4	0.75	BN / BK	2078	Driver Seat Heating Element Low Reference	I	—

E14C Front Seat Back Heater - Passenger (KA1)



5423974

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 6098-9049
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 MCON Series(GY)

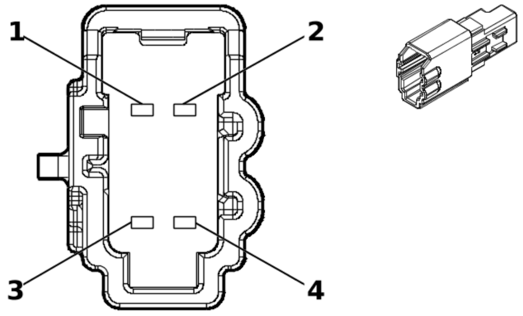
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

E14C Front Seat Back Heater - Passenger (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN / BU	2479	Passenger Seat Heating Element Control	I	—
2	0.5	WH / BU	2436	Passenger Seat Back Heating Temperature Sensor Signal	II	—
3	0.5	BK / GN	2482	Passenger Heated Back Thermistor Low Reference	II	—
4	0.75	GY / BK	2480	Passenger Seat Heating Element Low Reference	I	—

E14D Front Seat Cushion Heater - Passenger (KA1)



5360963

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 6098-9046
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 MCON Series(BK)

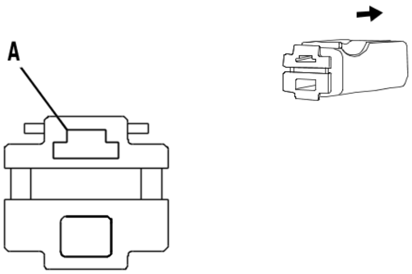
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-13 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

E14D Front Seat Cushion Heater - Passenger (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN / BU	2479	Passenger Seat Heating Element Control	I	—
2	0.5	WH / GY	2434	Passenger Seat Heating Temperature Sensor Signal	II	—
3	0.5	BK / GY	2435	Passenger Heated Seat Thermistor Low Reference	II	—
4	0.75	GY / BK	2480	Passenger Seat Heating Element Low Reference	I	—

E18 Rear Window Defogger Grid X1



Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 7123-5014-30
Service Connector: 19367647
Description: 1-Way F 250 Series(BK)

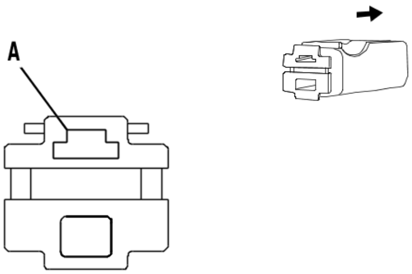
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

E18 Rear Window Defogger Grid X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2.5	BN / VT	293	Rear Defogger Grid Control	I	—

E18 Rear Window Defogger Grid X2



4248834

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 7123-5014-30
Service Connector: 19367647
Description: 1-Way F 250 Series(BK)

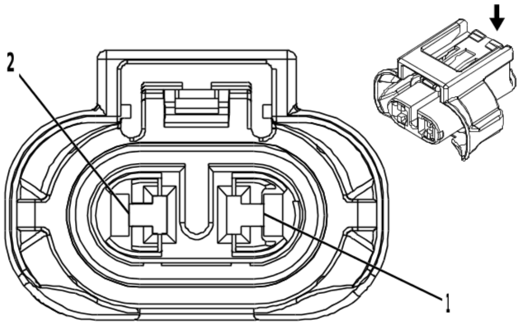
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required

E18 Rear Window Defogger Grid X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2.5	BK	550	Ground	I	—

E29LF Front Fog Lamp - Left



3404058

Connector Part Information

Harness Type: Front Object Alarm Sensor Wiring Harness
OEM Connector: F194300
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed(BK)

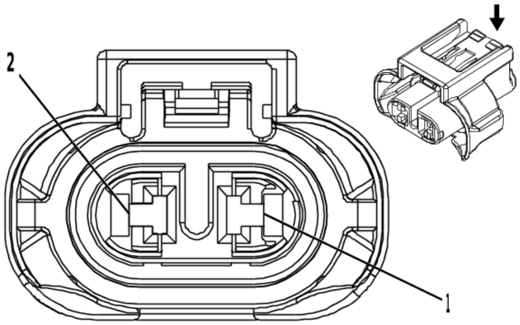
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E29LF Front Fog Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BN / GY	5061	Left Front Fog Lamp Control	I	—
2	1.5	BK	550	Ground	I	—

E29RF Front Fog Lamp - Right



3404058

Connector Part Information

Harness Type: Front Object Alarm Sensor Wiring Harness
OEM Connector: F194300
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

E29RF Front Fog Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BN / GY	5061	Left Front Fog Lamp Control	I	—
2	1.5	BK	550	Ground	I	—

E33L Cargo Lamp - Left (S0Y)

—

Connector Part Information

Harness Type: Chassis Rear Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E33L Cargo Lamp - Left (S0Y)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY / BU	7762	Cargo Lamp Control	I	—
2	—	BK	750	Ground	I	—

E33R Cargo Lamp - Right (S0Y)

—

Connector Part Information

Harness Type: Cargo Lamp Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

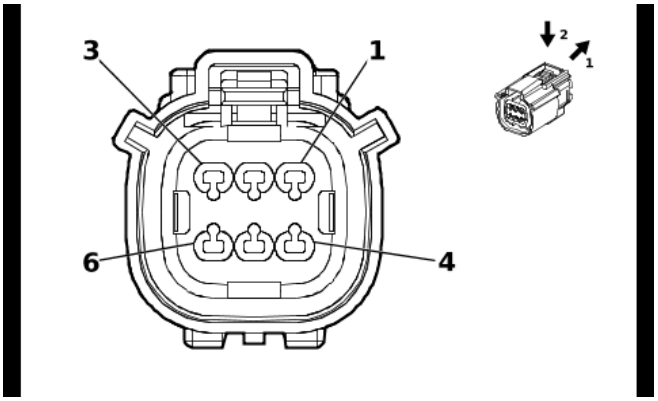
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

E33R Cargo Lamp - Right (S0Y)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY / BU	7762	Cargo Lamp Control	I	—
2	—	BK	750	Ground	I	—

E42L Rear Body Structure Stop Lamp - Left



5666225

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 33472-0705
Service Connector: 86526151
Description: 6-Way F 1.5 MX Series, Sealed(BK)

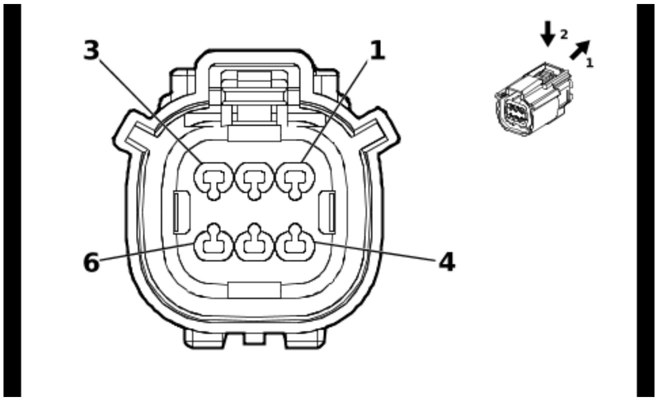
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

E42L Rear Body Structure Stop Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	750	Ground	I	—
2	0.5	BU / WH	1334	Left Rear Turn Signal Lamp Control 2	I	—
3	0.5	BN / BU	6993	Left Rear Park Lamp Control	I	—
4	0.5	GN / WH	24	Backup Lamp Control	I	—
5	0.5	GN / WH	24	Backup Lamp Control	I	—
6	—	—	—	Not Occupied	—	—

E42R Rear Body Structure Stop Lamp - Right



5666225

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 33472-0705
Service Connector: 86526151
Description: 6-Way F 1.5 MX Series, Sealed(BK)

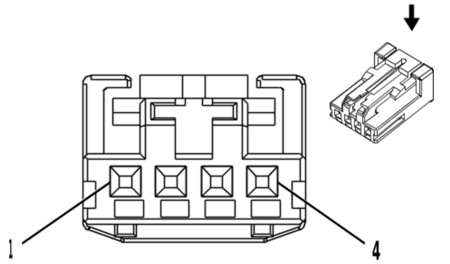
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required

E42R Rear Body Structure Stop Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	850	Ground	I	—
2	0.75	BU / VT	1335	Right Rear Turn Signal Lamp Control 2	II	—
3	0.5	BN / GY	6995	Right Rear Park Lamp Control	I	—
4	0.5	GN / WH	24	Backup Lamp Control	I	—
5	0.5	GN / WH	24	Backup Lamp Control	I	—
6	—	—	—	Not Occupied	—	—

E97 Rear Seat Position Center Courtesy Lamp



2717162

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 936119-1
Service Connector: 19367524
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

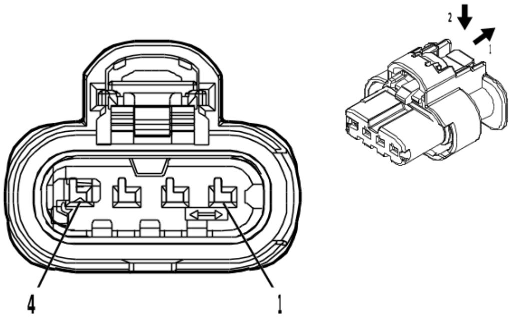
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

E97 Rear Seat Position Center Courtesy Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / BN	6815	Inadvertent Load Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	BK	4250	Ground	I	—
4	0.35	GY	157	Interior Lamp Control	I	—

F101 Instrument Panel Airbag



4280383

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 2296700-6
Service Connector: 19368563
Description: 4-Way F 1.2 MCON-CB Series, Sealed(YE)

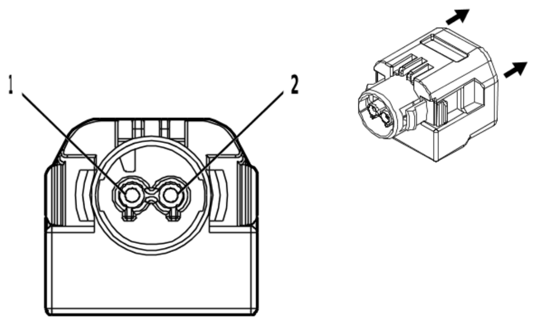
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

F101 Instrument Panel Airbag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / WH	3024	Passenger Instrument Panel Air Bag Stage 1 Low Control	I	—
2	0.5	YE / OG	3025	Passenger Instrument Panel Air Bag Stage 1 High Control	I	—
3	0.5	OG / VT	3026	Passenger Instrument Panel Air Bag Stage 2 Low Control	I	—
4	0.5	GY / OG	3027	Passenger Instrument Panel Air Bag Stage 2 High Control	I	—

F105L Front and Rear Row Roof Rail Airbag - Left



4676225

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-1802367-3
Service Connector: 13529172
Description: 2-Way F ABX-5 Series(GY with YE Cover)

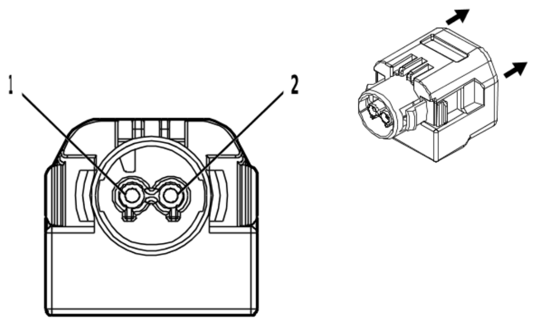
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-10 (GN)	No Tool Required

F105L Front and Rear Row Roof Rail Airbag - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GN	5019	Left Front Roof Rail Air Bag High Control	I	—
2	0.5	VT / OG	5020	Left Front Roof Rail Air Bag Low Control	I	—

F105R Front and Rear Row Roof Rail Airbag - Right



4676225

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-1802367-3
Service Connector: 13529172
Description: 2-Way F ABX-5 Series(GY with YE Cover)

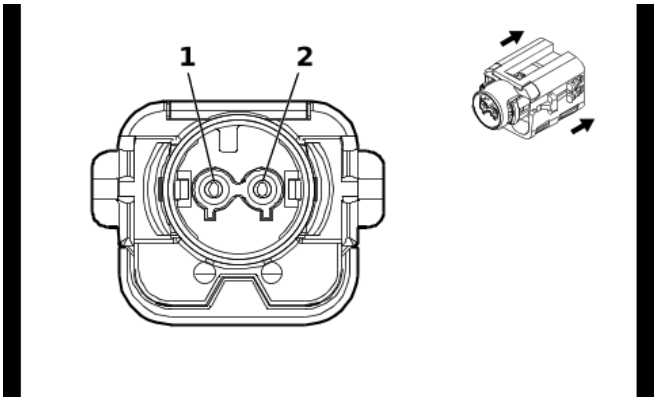
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-10 (GN)	No Tool Required

F105R Front and Rear Row Roof Rail Airbag - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GY	5021	Right Front Roof Rail Air Bag High Control	I	—
2	0.5	WH / OG	5022	Right Front Roof Rail Air Bag Low Control	I	—

F106D Front Seat Outboard Seat Back Airbag - Driver



5499727

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 35212936
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F ABX-5 Series(PK with YE Cover)

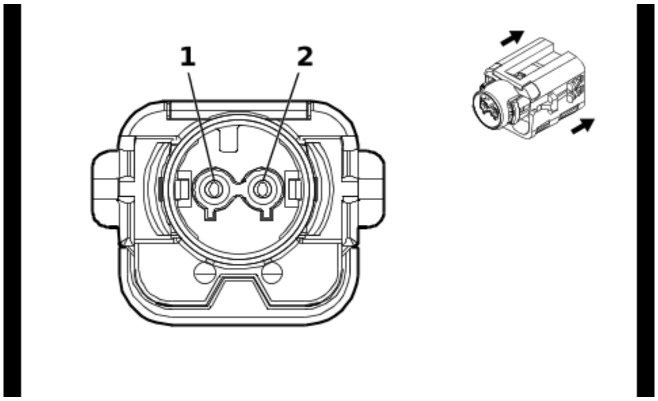
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F106D Front Seat Outboard Seat Back Airbag - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / BU	4962	Driver Seat Back Air Bag High Control	I	—
2	0.5	BK / OG	4963	Driver Seat Back Air Bag Low Control	I	—

F106P Front Seat Outboard Seat Back Airbag - Passenger



5499727

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 35212936
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F ABX-5 Series(PK with YE Cover)

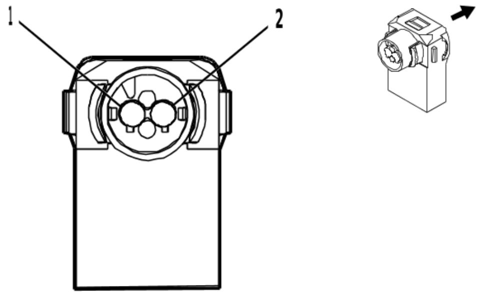
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F106P Front Seat Outboard Seat Back Airbag - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GY	4956	Passenger Seat Back Air Bag High Control	I	—
2	0.5	BU / OG	4957	Passenger Seat Back Air Bag Low Control	I	—

F107 Steering Wheel Airbag



4679778

Connector Part Information

Harness Type: Steering Wheel Wiring Harness
OEM Connector: 13516030
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F ABX-5 Series(GY with YE Cover)

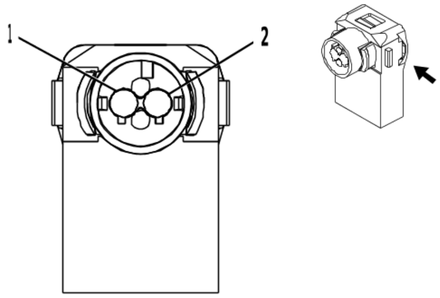
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

F107 Steering Wheel Airbag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	OG / VT	3021	Steering Wheel Air Bag Stage 1 High Control	I	—
2	—	BN / OG	3020	Steering Wheel Air Bag Stage 1 Low Control	I	—

F112D Front Seat Belt Retractor - Driver



4241364

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35504153
Service Connector: 85666123
Description: 2-Way F ABX-5 Series(PU with YE Cover)

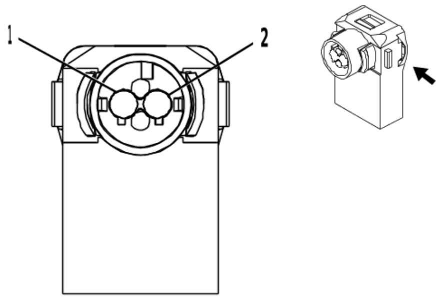
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-10 (GN)	No Tool Required

F112D Front Seat Belt Retractor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / WH	3477	Driver Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	VT / OG	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	—

F112P Front Seat Belt Retractor - Passenger



4241364

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35504153
Service Connector: 85666123
Description: 2-Way F ABX-5 Series(PU with YE Cover)

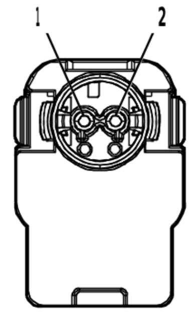
Terminal Part Information

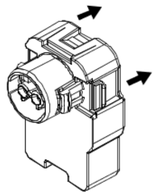
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-10 (GN)	No Tool Required

F112P Front Seat Belt Retractor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	—
2	0.5	WH / OG	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	—

F113D Front Seat Belt Anchor Plate Tensioner - Driver (AEO)





4823732

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-1802365-1
Service Connector: 13530531
Description: 2-Way F ABX-5 Series(PK with YE Cover)

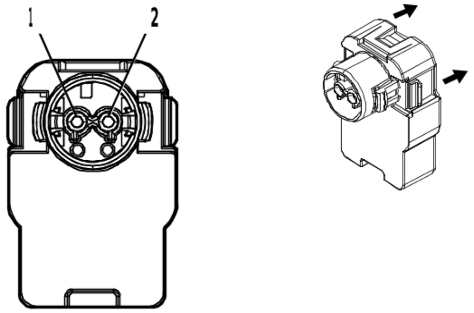
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-10 (GN)	No Tool Required

F113D Front Seat Belt Anchor Plate Tensioner - Driver (AEO)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	—
2	0.5	VT / OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	—

F113P Front Seat Belt Anchor Plate Tensioner - Passenger (AEO)



4823732

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-1802365-1
Service Connector: 13530531
Description: 2-Way F ABX-5 Series(PK with YE Cover)

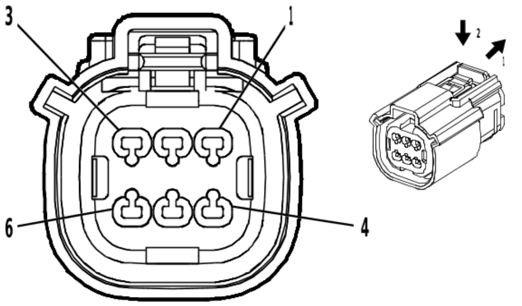
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-10 (GN)	No Tool Required

F113P Front Seat Belt Anchor Plate Tensioner - Passenger (AEO)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG / BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	—
2	0.5	GY / OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	—

G5 Automatic Transmission Auxiliary Fluid Pump



4574736

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 160038-3009
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.5 MX Series, Sealed(WH)

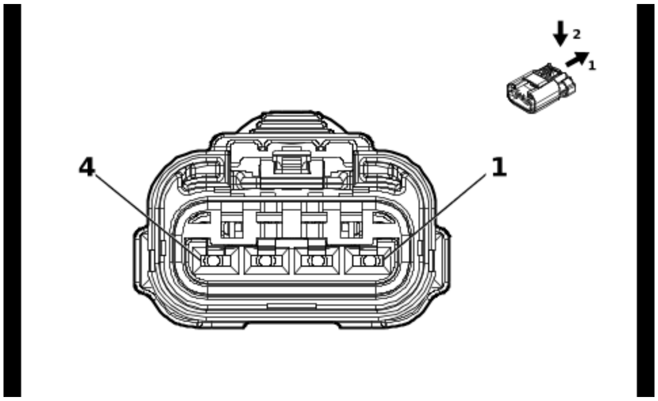
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

G5 Automatic Transmission Auxiliary Fluid Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	RD / GN	840	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	—	GN / GY	6387	Transmission High Side Driver 1 Control	I	—
4	—	GN / WH	2968	Transmission Auxiliary Fluid Pump Control	I	—
5	—	—	—	Not Occupied	—	—
6	—	BK	6250	Transmission Ground	I	—

G10L Cooling Fan Motor - Left



5838592

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 35243535
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 2.8 APEX Series, Sealed(BK)

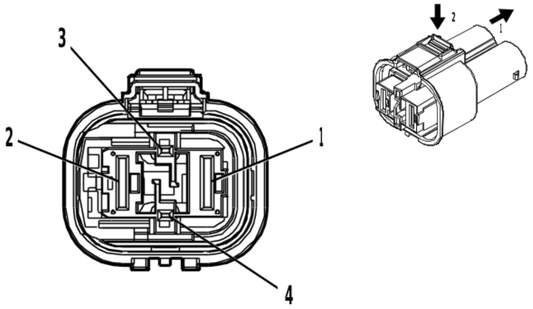
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

G10L Cooling Fan Motor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	BK	150	Ground	I	—
2	5	RD / BU	1542	Battery Positive Voltage	I	—
3	—	—	—	Not Occupied	—	—
4	0.75	GN / VT	4621	Engine Control Module LIN Bus 1	I	—

G10LW Cooling Fan Motor - Lower (Z82)



4847569

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 3-2286732-1
Service Connector: 84766431
Description: 4-Way F 1.2, 9.5 MCON Series, Sealed(BK)

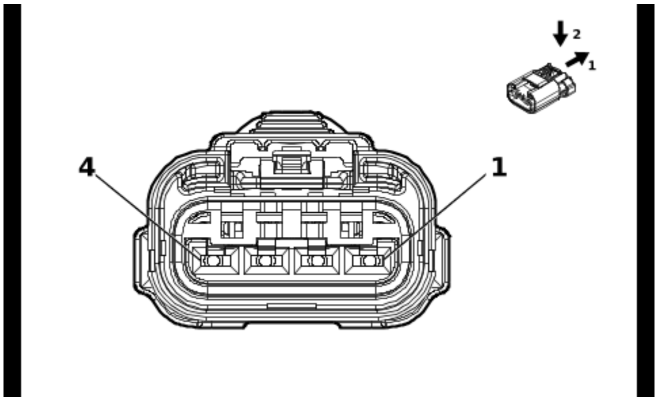
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-22 (RD)	No Tool Required

G10LW Cooling Fan Motor - Lower (Z82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD / GY	1342	Battery Positive Voltage	II	—
2	5	BK	150	Ground	II	—
3	0.5	GN / YE	4623	Engine Control Module LIN Bus 3	I	—
4	—	—	—	Not Occupied	—	—

G10R Cooling Fan Motor - Right



5838592

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 35243535
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 2.8 APEX Series, Sealed(BK)

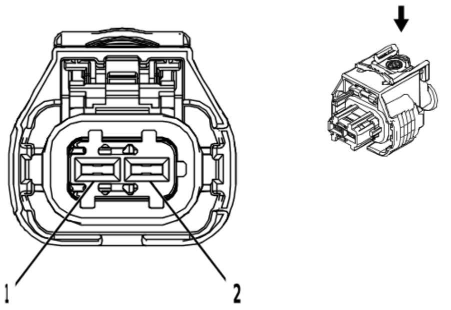
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

G10R Cooling Fan Motor - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	BK	150	Ground	I	—
2	5	RD / YE	1442	Battery Positive Voltage	I	—
3	—	—	—	Not Occupied	—	—
4	0.75	GN / VT	4621	Engine Control Module LIN Bus 1	I	—

G13 Generator X1



2577394

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1928405714
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

G13 Generator X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	25	Charge Indicator Control	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X2

—

Connector Part Information

Harness Type: Battery Negative Cable
OEM Connector: 23385196
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way

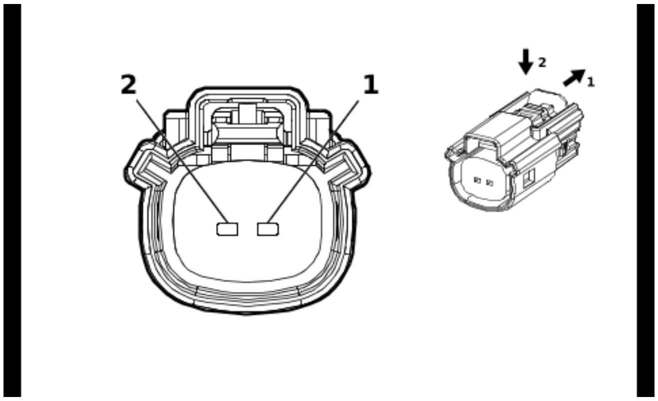
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

G13 Generator X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD / YE	2	Battery Positive Voltage	I	—

G18 Fuel Pump - High Pressure



2474713

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 33471-0206
Service Connector: 13577534
Description: 2-Way F 1.5 Series, Sealed(BK)

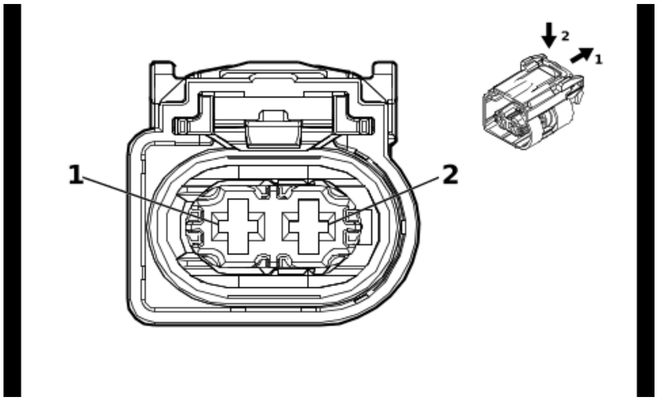
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

G18 Fuel Pump - High Pressure

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT / BK	7300	High Pressure Fuel Pump Low Control	I	—
2	0.75	YE	7301	High Pressure Fuel Pump High Control	I	—

G24 Windshield Washer Pump



5580410

Connector Part Information

Harness Type: Windshield Washer Pump Extension Wiring Harness
OEM Connector: 2425741-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 MCP Series, Sealed(BK)

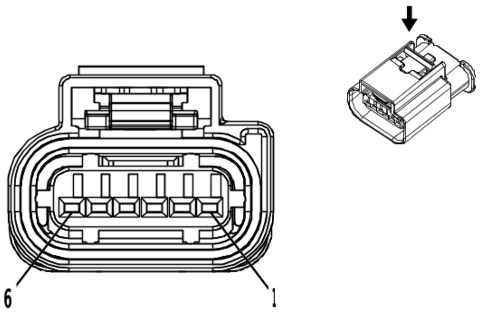
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

G24 Windshield Washer Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK	2250	Ground	I	—
	—	GY / VT	228	Windshield Washer Pump Control	I	—
	—	BU / VT	392	Rear Window Washer Pump Control	I	—
2	—	BK	2250	Ground	I	—
	—	GY / VT	228	Windshield Washer Pump Control	I	—
	—	BU / VT	392	Rear Window Washer Pump Control	I	—

G58 Evaporative Emission Canister Purge Pump



3747579

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 2272975-1
Service Connector: 19354437
Description: 6-Way F 1.2 MCON Series, Sealed(BK)

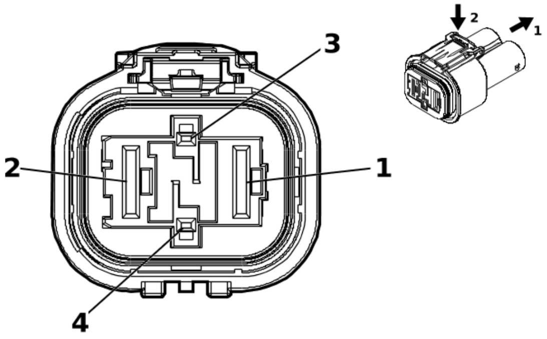
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

G58 Evaporative Emission Canister Purge Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / BU	2447	Evaporative Purge Pump Pressure Signal	I	—
2	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
3	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
4	0.5	GN / BN	2732	Engine Control Module LIN Bus 4	I	—
5	0.5	BK	550	Ground	I	—
6	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	I	—

G59 Engine Coolant Pump



5389785

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2332470-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2, 9.5 MCON Series(BK)

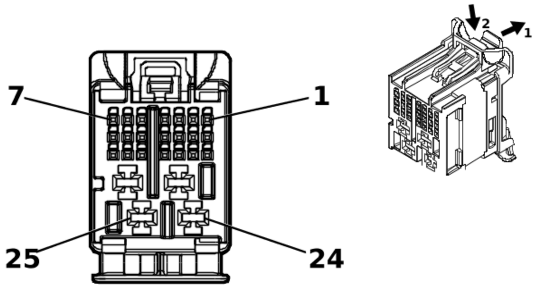
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-22 (RD)	No Tool Required

G59 Engine Coolant Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	10	RD / YE	442	Battery Positive Voltage	II	—
2	10	BK	6550	Ground	II	—
3	0.5	GN / BN	2732	Engine Control Module LIN Bus 4	I	—
4	—	—	—	Not Occupied	—	—

K9 Body Control Module X1



5203995

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 160027-0013
Service Connector: 13534967
Description: 25-Way F 0.5 MQS, 2.8 MCP Series(BK with GY Inner Connector)

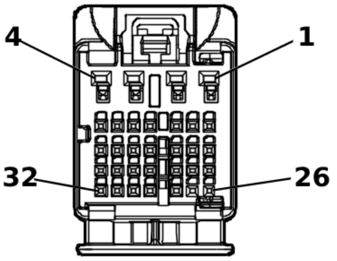
Terminal Part Information

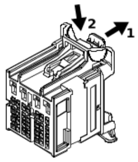
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	87814662	J-35616-4A (PU)	J-38125-557

K9 Body Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 4	—	—	—	Not Occupied	—	—
5	0.35	BU / GY	754	Blower Motor Speed Control	I	—
6	0.35	WH / YE	4634	HVAC Remote Enable Signal	I	—
7 - 10	—	—	—	Not Occupied	—	—
11	0.35	GY / GN	4636	HVAC System Enable Signal	I	—
12	0.35	GY	728	Security Indicator Control	I	—
13	—	—	—	Not Occupied	—	—
14	0.35	GN / VT	4759	Transmission Shift Lever Position Indicator 2 Control	I	—
15	0.35	GY	590	Driver Solar Sensor Signal	I	—
16	0.35	GY	6137	Air Conditioning Evaporator Temperature Sensor Signal	I	—
17	0.35	WH / BU	278	Ambient Light Sensor Signal	I	—
18	0.35	BU / WH	734	Inside Air Temperature Sensor Signal	I	—
19	—	—	—	Not Occupied	—	—
20	0.35	GN / VT	2852	Body Control Module LIN Bus 6	I	—
21 - 22	—	—	—	Not Occupied	—	—
23	1	RD / GY	2840	Battery Positive Voltage	II	—
24	—	—	—	Not Occupied	—	—
25	1	RD / GY	2140	Battery Positive Voltage	II	—

K9 Body Control Module X2





5204222

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 160028-0015
Service Connector: 13534980
Description: 32-Way F 0.5 NANO, 1.2 MCON, stAK50h Series(PK with GY Inner Connector)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	84729890	J-35616-12 (BU)	J-38125-215A

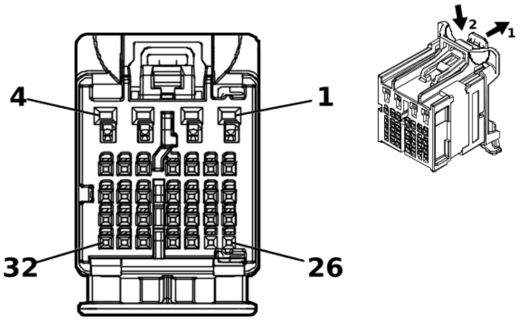
K9 Body Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	157	Interior Lamp Control	II	—
2 - 4	—	—	—	Not Occupied	—	—
5	0.35	BU / GN	5723	Ignition Mode Switch Mode Voltage	I	—
6 - 8	—	—	—	Not Occupied	—	—
9	0.35	GN / BU	3738	Tap Up/Tap Down Switch Signal 2	I	—
10	0.35	WH / BN	2203	Enhanced Driver Mode 2 Switch Signal	I	—
11	—	—	—	Not Occupied	—	—
12	0.35	YE / BU	1714	Windshield Wiper Switch Low Signal	I	—
13	0.35	BN / GN	11875	Cruise Control Bank 2 Switch Signal	I	—
14	0.35	GY / GN	11874	Cruise Control Bank 1 Switch Signal	I	—
15	—	—	—	Not Occupied	—	—
16	0.35	BN / BK	5720	Ignition Mode Switch Accessory LED Signal	I	—
17 - 22	—	—	—	Not Occupied	—	—
23	0.35	VT / BU	2916	Right Turn Signal Switch Signal	I	—
24	—	—	—	Not Occupied	—	—
25	0.35	BK / GY	6009	Windshield Wiper Switch Low Reference	I	—
26	0.35	WH / BK	94	Windshield Washer Switch Signal	I	—
27	0.35	YE / BN	307	Headlamp Switch Flash Signal	I	—
28	0.35	GN / WH	3287	Horn Switch Signal	I	—
29	0.35	WH / GN	2915	Left Turn Signal Switch Signal	I	—
30	0.35	BK / YE	407	Sensor Low Reference	I	—

K9 Body Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
31	0.35	GN / WH	111	Hazard Warning Switch Signal	I	—
32	0.35	WH	524	High Beam Select Switch High Beam Signal	I	—

K9 Body Control Module X3



5203925

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 160028-0012
Service Connector: 13534977
Description: 32-Way F 0.5 NANO, 1.2 MCON, stAK50h Series(BU with GY Inner Connector)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	84729890	J-35616-12 (BU)	J-38125-215A

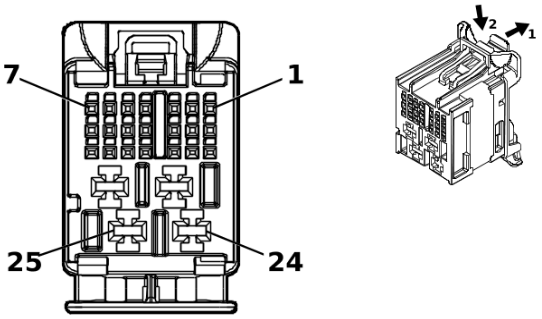
K9 Body Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	WH / BN	6815	Inadvertent Load Control	II	—
4 - 8	—	—	—	Not Occupied	—	—
9	0.35	YE / GY	44	Instrument Panel Lamp Dimmer Switch Signal	I	—
10	0.35	GN / BK	2858	Body Control Module LIN Bus 12	I	—
11	—	—	—	Not Occupied	—	—
12	0.35	VT / BK	7553	Park Lock Solenoid Actuator Control	I	—
13	0.35	WH	3152	Lane Departure Warning Indicator Control	I	—
14	—	—	—	Not Occupied	—	—
15	0.35	GN	1110	Stop/Start Indicator Control	I	—
16	0.35	GN / BU	761	Blower Speed Feedback Signal	I	—
17	0.35	WH / VT	5905	Key Capture/Column Lock Shift Position Signal	I	—
18	0.35	BK / YE	5005	Instrument Panel Lamp Dimmer Switch Low Reference	I	—
19	0.35	BU / BK	5719	Ignition Mode Switch Start LED Signal	I	—
20 - 22	—	—	—	Not Occupied	—	—
23	0.35	BU	1111	Stop/Start Switch Signal	I	—
24	0.35	WH / BU	3691	Trailer Brake Apply Signal	I	—
25	0.35	GY	4989	Driver Mode 2 Switch Signal	I	—
26	—	—	—	Not Occupied	—	—
27	0.35	GY / WH	3153	Lane Departure Warning Disable Switch Signal	I	—

K9 Body Control Module X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
28 - 32	—	—	—	Not Occupied	—	—

K9 Body Control Module X4



5203893

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 160027-0018
Service Connector: 13534970
Description: 25-Way F 0.5 MQS, 2.8 MCP Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	87814662	J-35616-4A (PU)	J-38125-557

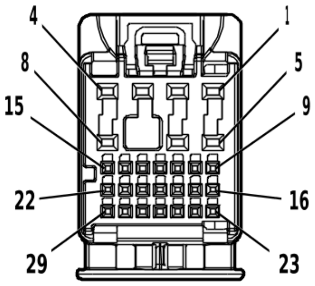
K9 Body Control Module X4

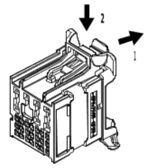
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / BK	3552	Interior Passive Entry Antenna 1 High Signal	I	—
2	0.35	WH	3553	Interior Passive Entry Antenna 1 Low Signal	I	—
3	0.35	BK / VT	1449	Steering Wheel Resistor Ladder Low Reference	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	GN / VT	5199	Run/Crank Relay Coil Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	BN / BK	4996	Immobilizer Antenna Signal [+]	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.35	GY / GN	4083	Retained Accessory Power Relay 2 Coil Control	I	—
11	0.35	GY / GN	328	Interior Lamp Defeat Switch Signal	I	—
12	—	—	—	Not Occupied	—	—
13	0.35	GY	156	Courtesy Lamp Switch Signal	I	—
14	0.35	WH / GY	4997	Immobilizer Antenna Low Signal	I	—
15	—	—	—	Not Occupied	—	—
16	0.35	GN / WH	4115	Body Control Module LIN Bus 5	I	—
17 - 18	—	—	—	Not Occupied	—	—
19	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	—
20	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	—
21	0.35	WH	6816	Indicator Dimming Control	I	—
22	0.75	RD / WH	2740	Battery Positive Voltage	II	—
23	2	RD / BU	2540	Battery Positive Voltage	II	—

K9 Body Control Module X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	2	BK	2050	Ground	II	—
25	2	BK	2050	Ground	II	—

K9 Body Control Module X5





4584346

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 160014-0012
Service Connector: 13534972
Description: 29-Way F 0.5 NANO, 1.2 MCON Series(GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	84729890	J-35616-12 (BU)	J-38125-215A

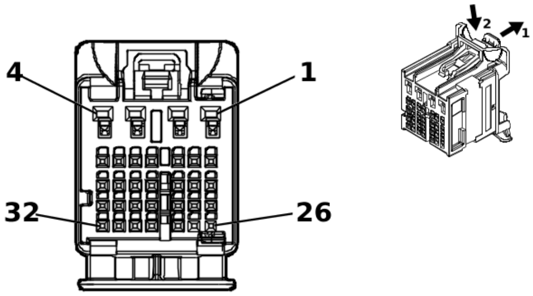
K9 Body Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	BU / BN	7573	Air Conditioning Compressor Solenoid Valve Control	II	—
3	0.5	BU / YE	7574	Air Conditioning Compressor Solenoid Valve Control	II	—
4	0.75	WH	2679	Lock Actuators Unlock Control 1	II	—
5	—	—	—	Not Occupied	—	—
6	0.5	YE	6817	LED Backlight Dimming Control 1	II	—
7	—	—	—	Not Occupied	—	—
8	0.75	GY	2681	Left Front Door Lock Actuator Lock Control	II	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.35	BN / WH	28	Horn Relay Control	I	—
12	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	—
13	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	—
14 - 15	—	—	—	Not Occupied	—	—
16	0.35	VT	4301	Passive Entry Left Antenna Signal High	I	—
17	0.35	GN / YE	2855	Body Control Module LIN Bus 9	I	—
18	0.35	VT / GY	126	Left Front Door Open Switch Signal	I	—
19	0.35	GN / YE	6134	Body Control Module LIN Bus 3	I	—
20	—	—	—	Not Occupied	—	—
21	0.35	WH / BU	6311	Cruise/ETC/TCC Brake Signal	I	—
22	0.35	BN / VT	193	Rear Defogger Relay Control	I	—

K9 Body Control Module X5 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
23	0.35	VT / GY	4302	Passive Entry Left Antenna Signal Low	I	—
24	0.35	WH	5359	Brake Apply Sensor Control	I	—
25	0.35	BU / YE	5361	Brake Apply Sensor Signal	I	—
26	0.35	BK / BN	5360	Brake Apply Sensor Low Reference	I	—
27 - 29	—	—	—	Not Occupied	—	—

K9 Body Control Module X6



5202291

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 160028-0017
Service Connector: 13534981
Description: 32-Way F 0.5 MQS, 1.2 OCS Series(BN with GY Inner Connector)

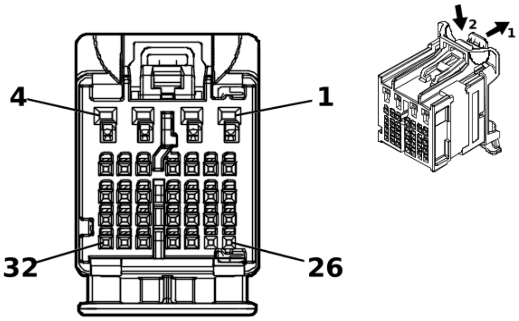
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	84729890	J-35616-12 (BU)	J-38125-215A

K9 Body Control Module X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	VT / WH	1094	Right Rear Door Lock Actuator Lock Control	II	—
3	0.75	GY / BK	2680	Lock Actuators Unlock Control 2	II	—
4 - 10	—	—	—	Not Occupied	—	—
11	0.35	GN / BU	6133	Body Control Module LIN Bus 2	I	—
12 - 21	—	—	—	Not Occupied	—	—
22	0.35	BN / GN	4064	Hood Status B Signal	I	—
23 - 27	—	—	—	Not Occupied	—	—
28	0.35	BU	2675	Left Front Exterior Door Handle Switch Unlock Signal	I	—
29 - 32	—	—	—	Not Occupied	—	—

K9 Body Control Module X7



5202294

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 160028-0014
Service Connector: 13534979
Description: 32-Way F 0.5 MQS, 1.2 OCS Series(PU with GY Inner Connector)

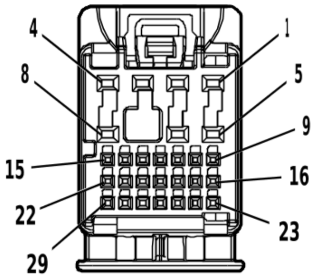
Terminal Part Information

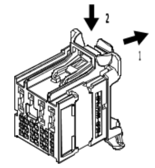
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58

K9 Body Control Module X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 18	—	—	—	Not Occupied	—	—
19	0.35	GN / VT	2857	Body Control Module LIN Bus 11	I	—
20 - 29	—	—	—	Not Occupied	—	—
30	0.35	BU / YE	7176	All Windows Open Switch Signal	I	—
31 - 32	—	—	—	Not Occupied	—	—

K9 Body Control Module X8





4578560

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 160014-0011
Service Connector: 13534971
Description: 29-Way F 0.5 NANO, 1.2 MCON, stAK50h Series(GY)

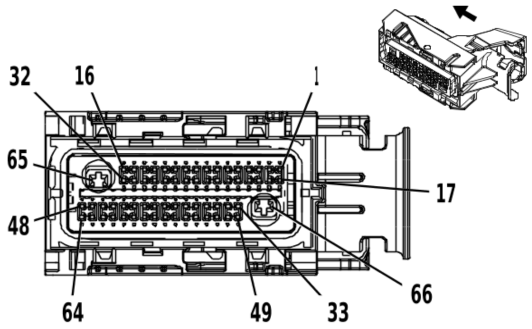
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	84729890	J-35616-12 (BU)	J-38125-215A

K9 Body Control Module X8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / VT	2691	Rear Closure Actuator Lock Control	II	—
2	—	—	—	Not Occupied	—	—
3	0.75	BU / YE	1091	Left Rear Door Lock Actuator Lock Control	II	—
4	0.75	YE / GN	2682	Right Front Door Lock Actuator Lock Control	II	—
5 - 8	—	—	—	Not Occupied	—	—
9	0.35	GN / BK	4304	Passive Entry Right Antenna Signal Low	I	—
10	0.35	GN / YE	4303	Passive Entry Right Antenna Signal High	I	—
11 - 16	—	—	—	Not Occupied	—	—
17	0.35	GN / YE	2862	Body Control Module LIN Bus 16	I	—
18	0.35	GN / WH	2854	Body Control Module LIN Bus 8	I	—
19 - 27	—	—	—	Not Occupied	—	—
28	0.35	GY / VT	2676	Right Front Door Exterior Switch Unlock Signal	I	—
29	0.35	GN / GY	6135	Body Control Module LIN Bus 4	I	—

K20 Engine Control Module X1



4504420

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34822-0033
Service Connector: 19371186
Description: 66-Way F 0.64, 2.8 Series, Sealed(BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19351723	J-35616-64B (L-BU)	J-38125-213

K20 Engine Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	5991	Powertrain Relay Coil Control	II	—
2	0.5	YE / BK	625	Starter Enable Relay Control	II	—
3	0.5	YE / VT	4325	Starter Pinion Solenoid Actuator Relay Control	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	VT / GY	3615	Intake Camshaft Profile Actuator 1 Control A	II	—
7	0.5	GN / BK	3616	Intake Camshaft Profile Actuator 1 Control B	II	—
8	0.5	GN	3585	Intake Camshaft Profile Actuator 2 Control A	II	—
9	0.5	BU	3584	Intake Camshaft Profile Actuator 2 Control B	II	—
10	0.5	YE / BU	3587	Intake Camshaft Profile Actuator 3 Control A	II	—
11	0.5	GY	3586	Intake Camshaft Profile Actuator 3 Control B	II	—
12	0.5	BU / WH	3589	Intake Camshaft Profile Actuator 1 Position Sensor Signal	II	—
13	0.5	GN / WH	3592	Intake Camshaft Profile Actuator 2 Position Sensor Signal	II	—
14	0.5	BK / GN	3593	Intake Camshaft Profile Actuator 3 Position Sensor Signal	II	—
15	—	—	—	Not Occupied	—	—
16	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	II	—
17	0.5	GN / GY	465	Fuel Pump Primary Relay Control	II	—
18	0.5	WH / GY	459	Air Conditioning Compressor Clutch Relay Control	II	—
19 - 21	—	—	—	Not Occupied	—	—

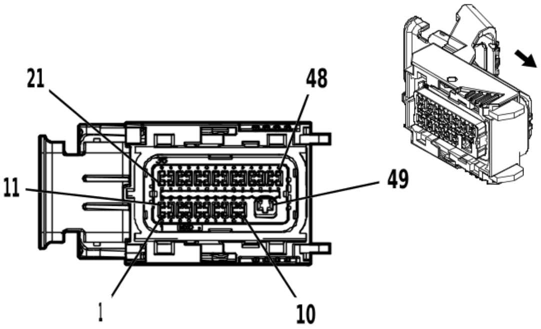
K20 Engine Control Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
22	0.5	GN / YE	1402	Intake Camshaft Profile Actuator 4 Control A	II	—
23	0.5	GY / YE	1502	Intake Camshaft Profile Actuator 4 Control B	II	—
24	0.5	YE / VT	6265	Exhaust Camshaft Profile Actuator 2 Control B	II	—
25	0.5	VT / BK	6264	Exhaust Camshaft Profile Actuator 2 Control A	II	—
26	0.5	GY / BN	6262	Exhaust Camshaft Profile Actuator 3 Control B	II	—
27	0.5	GN / BN	6261	Exhaust Camshaft Profile Actuator 3 Control A	II	—
28	0.5	YE / BN	1702	Intake Camshaft Profile Actuator 4 Position Sensor Signal	II	—
29	0.5	GN / BK	6266	Exhaust Camshaft Profile Actuator 2 Position Sensor Signal	II	—
30	0.5	YE	6263	Exhaust Camshaft Profile Actuator 3 Position Sensor Signal	II	—
31	—	—	—	Not Occupied	—	—
32	0.5	VT / GY	139	Run/Crank Ignition 1 Voltage	II	—
33	0.5	BK / BU	1271	Accelerator Pedal Position Low Reference 1	II	—
34	0.5	YE / WH	3746	Camshaft Exhaust Lobe Axial Position Signal 1	II	—
35	0.5	BK / VT	1272	Accelerator Pedal Position Low Reference 2	II	—
36	0.5	YE / GN	3747	Camshaft Exhaust Lobe Axial Position Signal 2	II	—
37	—	—	—	Not Occupied	—	—
38	0.5	YE	4063	Hood Status A Signal	II	—
39	0.5	YE / WH	1161	Accelerator Pedal Position Signal 1	II	—
40 - 41	—	—	—	Not Occupied	—	—
42	0.5	GN / BN	2732	Engine Control Module LIN Bus 4	II	—
43 - 44	—	—	—	Not Occupied	—	—
45	0.5	BU / GY	4054	Private Serial Data Powertrain CAN Bus [-] Serial Data	II	—
46	0.5	WH	4055	Private Serial Data Powertrain CAN Bus [+] Serial Data	II	—
47	0.5	BU	492	Mass Air Flow Sensor Signal	II	—
48	0.5	RD / WH	140	Battery Positive Voltage	II	—
49	0.5	WH / RD	1164	Accelerator Pedal Position 5V Reference 1	II	—
50	0.5	VT / WH	3744	Camshaft Intake Lobe Axial Position Signal 1	II	—
51	0.5	BN / RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
52	0.5	VT / GN	3745	Camshaft Intake Lobe Axial Position Signal 2	II	—
53	0.5	BU / GY	636	Ambient Air Temperature Sensor Signal	II	—
54	—	—	—	Not Occupied	—	—
55	0.5	GN	380	Air Conditioning Refrigerant Pressure Sensor Signal	II	—
56	0.5	WH / GN	5380	Brake Position Sensor Signal	II	—
57	0.5	GN / WH	1162	Accelerator Pedal Position Signal 2	II	—
58	—	—	—	Not Occupied	—	—
59	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	—
60	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	—
61 - 62	—	—	—	Not Occupied	—	—
63	0.5	WH	4976	AUTOSAR CAN Bus [-] 3 Serial Data	II	—
64	0.5	BU / BK	4977	AUTOSAR CAN Bus [+] 3 Serial Data	II	—
65	2.5	BK / WH	151	Signal Ground	I	—

K20 Engine Control Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
66	2	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	I	—

K20 Engine Control Module X2



4596458

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34576-0103
Service Connector: 19355678
Description: 49-Way F 0.64, 2.8 Series, Sealed(BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19351723	J-35616-64B (L-BU)	J-38125-213

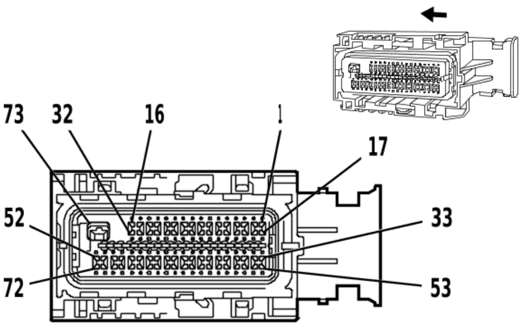
K20 Engine Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GN	4320	Powertrain Sensor Bus Enable	II	—
2	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	II	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	BN / BU	2447	Evaporative Purge Pump Pressure Signal	II	—
6 - 8	—	—	—	Not Occupied	—	—
9	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	II	—
10	0.5	BU / GY	2978	Coolant Diverter Valve Position Signal	II	—
11	—	—	—	Not Occupied	—	—
12	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	II	—
13 - 14	—	—	—	Not Occupied	—	—
15	0.5	GN / BK	3337	Transmission Internal Mode Switch Mode Control Y	II	—
16	0.5	YE / BN	331	Oil Pressure Sensor Signal	II	—
17 - 18	—	—	—	Not Occupied	—	—
19	0.5	BU / WH	2918	Fuel Rail Pressure Sensor Signal	II	—
20	0.5	WH	2590	Turbocharger Wastegate Motor Feedback Signal	II	—
21	—	—	—	Not Occupied	—	—
22	0.5	BK / GY	626	Engine Control Vehicle Sensors Low Reference 1	II	—
23	0.5	VT	7485	Engine Oil Temperature Sensor 2 Signal	II	—
24	0.5	BN / BU	357	Oil Temperature Sensor Signal	II	—
25	0.5	YE / WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	II	—

K20 Engine Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
26 - 28	—	—	—	Not Occupied	—	—
29	0.5	YE / GY	3926	Crankcase Differential Pressure Sensor Signal	II	—
30	—	—	—	Not Occupied	—	—
31	0.5	YE / GY	6936	HO2S Signal	II	—
32	0.5	BN	6934	HO2S Ground	II	—
33	0.5	GN / YE	4623	Engine Control Module LIN Bus 3	II	—
34	0.5	GY / WH	3113	HO2S Heater Low Control Bank 1 Sensor 1	II	—
35	—	—	—	Not Occupied	—	—
36	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	II	—
37	0.5	YE / BK	3000	Coolant Temperature Sensor 2 Signal	II	—
38 - 39	—	—	—	Not Occupied	—	—
40	0.5	GY / VT	2404	Engine Block Coolant Temperature Signal	II	—
41 - 44	—	—	—	Not Occupied	—	—
45	0.5	GN	6935	HO2S Pump Current Trim Signal	II	—
46	0.5	BN / WH	6933	HO2S Pump Current Signal	II	—
47	0.75	GN / VT	4621	Engine Control Module LIN Bus 1	II	—
48	0.5	GN / WH	4622	Engine Control Module LIN Bus 2	II	—
49	2.5	BK / WH	151	Signal Ground	I	—

K20 Engine Control Module X3



1650395

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34566-0203
Service Connector: 19333091
Description: 73-Way F 0.64, 2.8 Series, Sealed(BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19354746	J-35616-64B (L-BU)	J-38125-215A

K20 Engine Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	GN	3060	Turbocharger Bypass Solenoid Valve Control Bank 1	II	—
3	0.5	BN	25	Charge Indicator Control	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	VT / BU	6270	Crankshaft Position Sensor Voltage	II	—
7	0.5	BN / RD	2701	Throttle Position Sensor 5V Reference	II	—
8	—	—	—	Not Occupied	—	—
9	0.5	GN / WH	432	Manifold Absolute Pressure Sensor Signal	II	—
10	0.5	BN	3120	HO2S High Signal Bank 1 Sensor 2	II	—
11	0.5	WH / YE	3121	HO2S Low Signal Bank 1 Sensor 2	II	—
12	0.5	VT / BN	5284	Intake Camshaft Position Actuator Solenoid Valve 1	II	—
13	0.5	GY / BU	5282	Exhaust Camshaft Position Actuator Solenoid Valve 1	II	—
14	0.5	BU	2976	Coolant Diverter Valve Actuator Control Open	II	—
15	0.75	WH / BN	2591	Turbocharger Wastegate Motor Open Control	II	—
16	0.75	WH / BU	2592	Turbocharger Wastegate Motor Close Control	II	—
17 - 20	—	—	—	Not Occupied	—	—
21	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	II	—
22	0.5	BK / VT	6272	Crankshaft Position Sensor Low Reference	II	—
23	0.5	BK / BN	2752	Throttle Position Sensor Low Reference	II	—

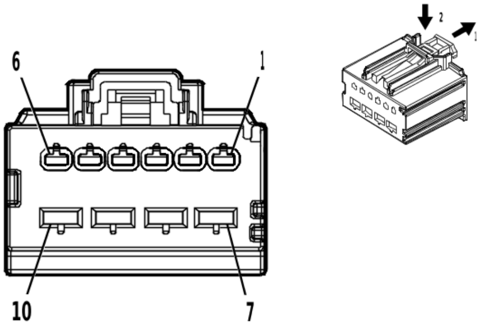
K20 Engine Control Module X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	0.5	YE / BU	2408	Engine Inlet Coolant Temperature Signal	II	—
25	0.5	VT	2988	Engine Outlet Coolant Temperature Signal	II	—
26	0.5	WH / BU	7329	Pre-Throttle Air Temperature Signal	II	—
27	0.5	BU / YE	8938	Engine Integrated Exhaust Manifold Temperature Signal	II	—
28	0.5	BK / BN	6753	Camshaft Position Actuator Solenoid Valve W Low Reference	II	—
29	0.5	BK / VT	6754	Camshaft Position Actuator Solenoid Valve X Low Reference	II	—
30	0.5	YE	581	Throttle Actuator Open Control	II	—
31	0.5	BN / WH	582	Throttle Actuator Close Control	II	—
32	0.5	BU / BN	2977	Coolant Diverter Valve Actuator Control Close	II	—
33	0.5	VT / GY	496	Knock Sensor 1 Signal	II	—
34	0.5	WH / GY	1876	Knock Sensor 2 Signal	II	—
35	0.5	BK / GN	469	Manifold Absolute Pressure Sensor Low Reference	II	—
36	0.5	GN / BU	428	EVAP Canister Purge Solenoid Control	II	—
37 - 38	—	—	—	Not Occupied	—	—
39	0.5	BK / GN	5301	Intake Camshaft Position Sensor Low Reference 1	II	—
40	0.5	BK / GY	5296	Exhaust Camshaft Position Sensor Low Reference 1	II	—
41	—	—	—	Not Occupied	—	—
42	0.5	VT / BK	5273	Exhaust Camshaft Position Sensor 1	II	—
43	0.5	GN	6271	Crankshaft Position Sensor Signal	II	—
44	0.75	YE / BU	2124	Ignition Control 4	II	—
45	0.75	BU / WH	2122	Ignition Control 2	II	—
46	0.75	BK / BU	2129	Ignition Control Low Reference Bank 1	II	—
47	0.5	GY / WH	3122	HO2S Heater Low Control Bank 1 Sensor 2	II	—
48	0.5	BU / WH	3630	Throttle Position Sensor SENT 1 Signal	II	—
49	0.75	BU / WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	II	—
50	0.75	GY / BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	II	—
51	0.75	BU / GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	II	—
52	0.75	BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	II	—
53	0.5	BK / YE	1716	Knock Sensor Low Reference 1	II	—
54	0.5	BK / GY	2303	Knock Sensor Low Reference 2	II	—
55	0.5	GY / RD	2704	Manifold Absolute Pressure Sensor 5V Reference	II	—
56	0.5	YE / BN	106	Oil Pump Motor Control	II	—
57	0.5	BU	179	Engine Oil Pump Control	II	—
58	—	—	—	Not Occupied	—	—
59	0.5	GY / BU	5300	Intake Camshaft Position Sensor 1 Voltage Reference	II	—
60	0.5	GY / YE	5297	Exhaust Camshaft Position Sensor 1 Voltage Reference	II	—

K20 Engine Control Module X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
61	0.5	GY	23	Generator Field Duty Cycle Signal	II	—
62	—	—	—	Not Occupied	—	—
63	0.5	YE / VT	5275	Intake Camshaft Position Sensor 1	II	—
64	0.75	BU / VT	2121	Ignition Control 1	II	—
65	0.75	GN / BU	2123	Ignition Control 3	II	—
66	—	—	—	Not Occupied	—	—
67	0.75	VT / BK	7300	High Pressure Fuel Pump Low Control	II	—
68	0.75	YE	7301	High Pressure Fuel Pump High Control	II	—
69	0.75	BN / WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	II	—
70	0.75	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	II	—
71	0.75	GN / GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	II	—
72	0.75	GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	II	—
73	2	VT / BU	5290	Powertrain Main Relay Fused Supply Voltage 1	I	—

K29FV Front Seat Heater Vent Control Module X1 (KA1)



5035058

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 31372-1600
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5, 2.8 MX Series(BK)

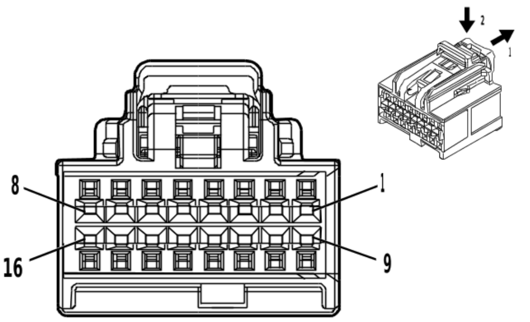
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

K29FV Front Seat Heater Vent Control Module X1 (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.75	BN / BU	2479	Passenger Seat Heating Element Control	I	—
3	0.75	GY / BK	2480	Passenger Seat Heating Element Low Reference	I	—
4	0.75	BN / BK	2078	Driver Seat Heating Element Low Reference	I	—
5	—	—	—	Not Occupied	—	—
6	0.75	BN / VT	2077	Driver Seat Heating Element Control	I	—
7	0.75	RD / VT	4640	Battery Positive Voltage	II	—
8	1.5	BK	4250	Ground	II	—
9	—	—	—	Not Occupied	—	—
10	0.75	RD / BU	4540	Battery Positive Voltage	II	—

K29FV Front Seat Heater Vent Control Module X2 (KA1)



4873243

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 35016343
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 0.64 OCS Series(BK)

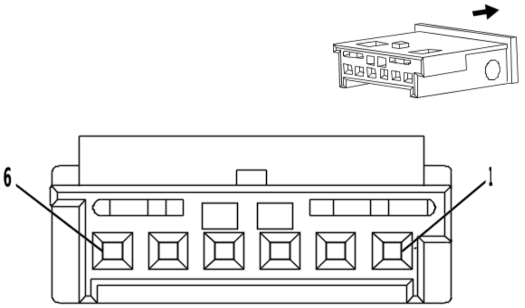
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K29FV Front Seat Heater Vent Control Module X2 (KA1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / YE	2080	Driver Heated Seat Thermistor Low Reference	I	—
2	0.5	BK / GY	2435	Passenger Heated Seat Thermistor Low Reference	I	—
3	0.5	BU	2425	Driver Seat Back Heating Temperature Sensor Signal	I	—
4	0.5	WH / BU	2436	Passenger Seat Back Heating Temperature Sensor Signal	I	—
5	0.5	WH / GY	2434	Passenger Seat Heating Temperature Sensor Signal	I	—
6	0.5	YE / GY	2079	Driver Seat Heating Temperature Sensor Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	GN / VT	2857	Body Control Module LIN Bus 11	I	—
9	0.5	GN / VT	5906	Driver Seat Blower Motor Control 1	I	—
10	0.5	VT / WH	5908	Passenger Seat Blower Motor Control 1	I	—
11	—	—	—	Not Occupied	—	—
12	0.5	BK / GN	2482	Passenger Heated Back Thermistor Low Reference	I	—
13 - 16	—	—	—	Not Occupied	—	—

K32 Heated Steering Wheel Module X1 (KI3)



1862024

Connector Part Information

Harness Type: Steering Wheel Wiring Harness
OEM Connector: 1-1241370-3
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Micro-Quadlock Series(BK)

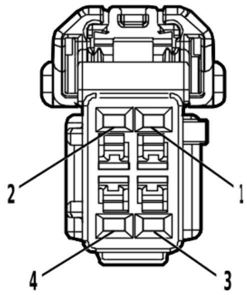
Terminal Part Information

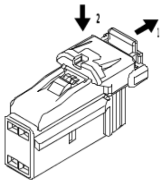
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K32 Heated Steering Wheel Module X1 (KI3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	YE / GY	5883	Steering Wheel Heating Switch Signal	I	—
2	—	BN / WH	5884	Steering Wheel Heating Switch LED Control	I	—
3	—	RD / BN	10040	Battery Positive Voltage	I	—
4	—	BK	6050	Steering Wheel Ground	I	—
5	—	BK / WH	6051	Steering Wheel Ground	I	—
6	—	GN / BK	2858	Body Control Module LIN Bus 12	I	—

K32 Heated Steering Wheel Module X2 (KI3)





4872683

Connector Part Information

Harness Type: Steering Wheel Horn Switch Wiring Harness
OEM Connector: 13533335
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 Series(BK)

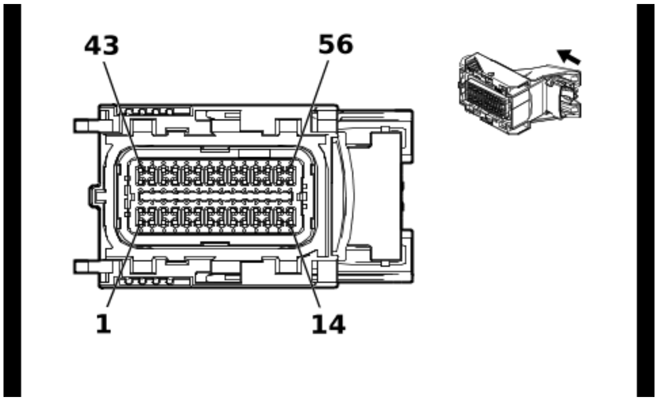
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K32 Heated Steering Wheel Module X2 (KI3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	WH / YE	5888	Steering Wheel Heating High Control	I	—
2	—	GY / YE	5887	Steering Wheel Heating Low Control	I	—
3	—	VT / BU	5886	Steering Wheel Heating Temperature Sensor Signal	I	—
4	—	YE / RD	5885	Steering Wheel Heating Voltage Reference	I	—

K36 Restraints Control Module X1



5581812

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 160099-0019
Service Connector: 85004499
Description: 56-Way F 0.64 Series, Sealed(BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (L-BU)	J-38125-215A

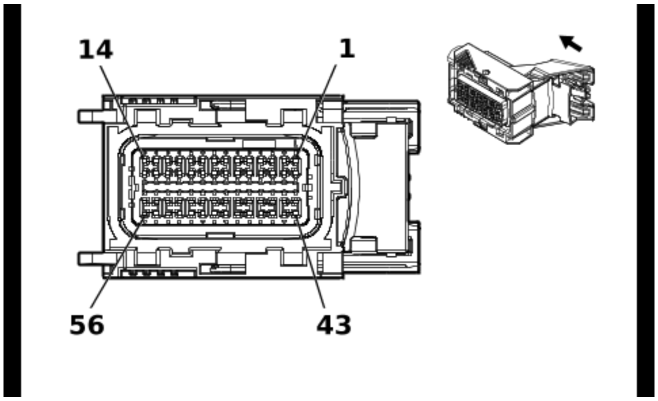
K36 Restraints Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 6	—	—	—	Not Occupied	—	—
7	0.5	BK / OG	5045	Left Front Impact Discriminating Sensor Low Reference	I	—
8	0.5	OG / YE	354	Left Front Impact Discriminating Sensor Signal	I	—
9	0.5	OG / GN	1409	Right Front Impact Discriminating Sensor Signal	I	—
10	0.5	BK / OG	5600	Right Front Impact Discriminating Sensor Low Reference	I	—
11	0.5	WH / OG	3476	Passenger Seat Belt Retractor Pretensioner Low Control	I	—
12	0.5	OG / GN	3475	Passenger Seat Belt Retractor Pretensioner High Control	I	—
13	0.5	YE / OG	3025	Passenger Instrument Panel Air Bag Stage 1 High Control	I	—
14	0.5	OG / WH	3024	Passenger Instrument Panel Air Bag Stage 1 Low Control	I	—
15 - 24	—	—	—	Not Occupied	—	—
25	0.5	VT / OG	3478	Driver Seat Belt Retractor Pretensioner Low Control	I	—
26	0.5	OG / WH	3477	Driver Seat Belt Retractor Pretensioner High Control	I	—
27	0.5	OG / VT	3021	Steering Wheel Air Bag Stage 1 High Control	I	—
28	0.5	BN / OG	3020	Steering Wheel Air Bag Stage 1 Low Control	I	—
29	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	—
30	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	—
31	—	—	—	Not Occupied	—	—

K36 Restraints Control Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
32	0.5	OG / BN	3479	Passenger Seat Belt Anchor Pretensioner High Control	I	—
33	0.5	GY / OG	3480	Passenger Seat Belt Anchor Pretensioner Low Control	I	—
34 - 36	—	—	—	Not Occupied	—	—
37	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	—
38	0.5	OG / VT	3026	Passenger Instrument Panel Air Bag Stage 2 Low Control	I	—
39	0.5	GY / OG	3027	Passenger Instrument Panel Air Bag Stage 2 High Control	I	—
40	0.35 0.35	GN VT / WH	3118 5234	Roof Rail Air Bag Disable Indicator Control Passenger Seat Belt Indicator Control	I I	C91 - C91
41	—	—	—	Not Occupied	—	—
42	0.5	BK / WH	1351	Signal Ground	I	—
43	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	—
44	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	—
45	—	—	—	Not Occupied	—	—
46	0.5	VT / OG	3482	Driver Seat Belt Anchor Pretensioner Low Control	I	—
47	0.5	OG / YE	3481	Driver Seat Belt Anchor Pretensioner High Control	I	—
48 - 49	—	—	—	Not Occupied	—	—
50	0.35	BN / WH	3895	Roof Rail Air Bag Disable Switch Low Reference	I	—
51	0.35	BU / WH	3119	Roof Rail Air Bag Disable Switch Signal	I	—
52	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
53 - 54	—	—	—	Not Occupied	—	—
55	0.5	VT / WH	1139	Run/Crank Ignition 1 Voltage	I	—
56	0.5	RD / GN	4440	Battery Positive Voltage	I	—

K36 Restraints Control Module X2



6154815

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 160099-0012
Service Connector: 86526150
Description: 56-Way F 0.64 Series, Sealed(NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19354746	J-35616-64B (L-BU)	J-38125-215A

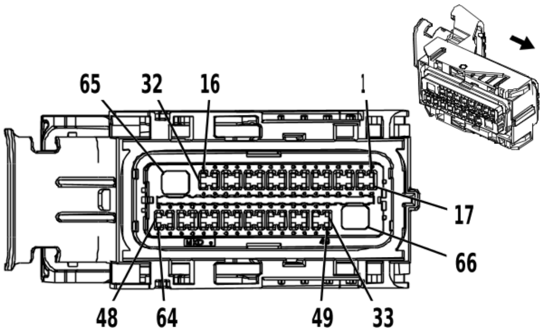
K36 Restraints Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 11	—	—	—	Not Occupied	—	—
12	0.5	OG / BN	238	Driver Seat Belt Switch Signal	I	—
13	0.5	BK / OG	6627	Right Rear Side Impact Sensor Low Reference	I	—
14	0.5	OG / WH	6626	Right Rear Side Impact Sensor Signal	I	—
15 - 22	—	—	—	Not Occupied	—	—
23	0.5	BK / OG	1363	Driver Seat Belt Switch Low Reference	I	—
24	—	—	—	Not Occupied	—	—
25	0.5	OG / VT	1362	Passenger Seat Belt Switch Signal	I	—
26	—	—	—	Not Occupied	—	—
27	0.5	BK / OG	6628	Left Front Side Impact Sensor Low Reference	I	—
28	0.5	OG / GN	2132	Left Front Side Impact Sensor Signal	I	—
29 - 36	—	—	—	Not Occupied	—	—
37	0.5	OG / GY	5021	Right Front Roof Rail Air Bag High Control	I	—
38	0.5	WH / OG	5022	Right Front Roof Rail Air Bag Low Control	I	—
39	0.5	BU / OG	4957	Passenger Seat Back Air Bag Low Control	I	—
40	0.5	OG / GY	4956	Passenger Seat Back Air Bag High Control	I	—
41	0.5	BK / OG	6629	Right Front Side Impact Sensor Low Reference	I	—
42	0.5	BN / OG	2134	Right Front Side Impact Sensor Signal	I	—
43 - 50	—	—	—	Not Occupied	—	—
51	0.5	OG / GN	5019	Left Front Roof Rail Air Bag High Control	I	—
52	0.5	VT / OG	5020	Left Front Roof Rail Air Bag Low Control	I	—
53	0.5	BK / OG	4963	Driver Seat Back Air Bag Low Control	I	—

K36 Restraints Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
54	0.5	OG / BU	4962	Driver Seat Back Air Bag High Control	I	—
55	0.5	BK / OG	6623	Left Rear Side Impact Sensor Low Reference	I	—
56	0.5	OG / BU	6622	Left Rear Side Impact Sensor Signal	I	—

K38 Chassis Control Module



4024881

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34822-0023
Service Connector: 19330900
Description: 66-Way F 0.64, 2.8 Series, Sealed(BK with BK Terminal Position Assurance)

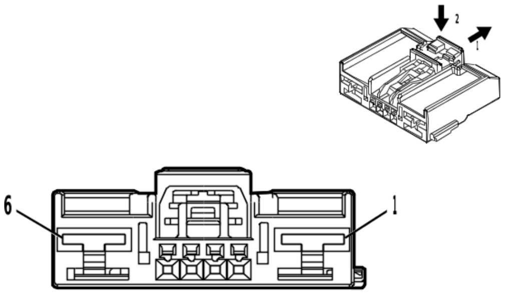
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19351723	J-35616-64B (L-BU)	J-38125-213

K38 Chassis Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 5	—	—	—	Not Occupied	—	—
6	0.5	VT / BK	739	Run/Crank Ignition 1 Voltage	II	—
7 - 12	—	—	—	Not Occupied	—	—
13	0.5	YE / GN	7122	Axle Differential Lock Switch Signal	II	—
14 - 31	—	—	—	Not Occupied	—	—
32	0.5	VT / GY	7117	Front Axle Differential Lock Indicator Control	II	—
33	0.75	VT / WH	7256	Front Differential Lock Actuator Control	II	—
34	0.5	BU / BK	4977	AUTOSAR CAN Bus [+] 3 Serial Data	II	—
35	0.5	BU / BK	4977	AUTOSAR CAN Bus [+] 3 Serial Data	II	—
36	0.5	WH	4976	AUTOSAR CAN Bus [-] 3 Serial Data	II	—
37	0.5	WH	4976	AUTOSAR CAN Bus [-] 3 Serial Data	II	—
38	0.5	YE	7115	Rear Axle Differential Lock Indicator Control	II	—
39 - 43	—	—	—	Not Occupied	—	—
44	0.75	GY / BK	7253	Rear Differential Lock Actuator Low Control	II	—
45 - 49	—	—	—	Not Occupied	—	—
50	0.75	VT / BN	7258	Rear Differential Lock Actuator Control	II	—
51 - 59	—	—	—	Not Occupied	—	—
60	0.75	WH / BK	7254	Front Differential Lock Actuator Low Control	II	—
61 - 64	—	—	—	Not Occupied	—	—
65	1	BK	5550	Ground	I	—
66	1	RD / WH	2140	Battery Positive Voltage	I	—

K40D Driver Seat Adjuster Memory Module X1 (A45)



4650258

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 7289-7139-30
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64, 6.3 Series(BK)

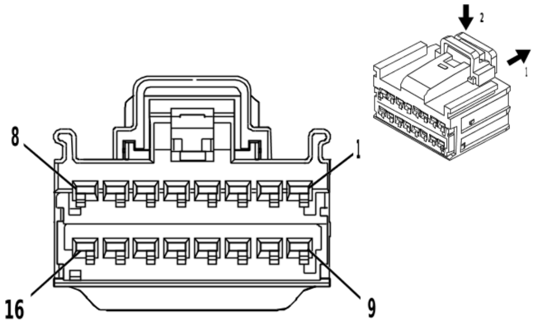
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required
II	Not required	J-35616-64B (L-BU)	No Tool Required

K40D Driver Seat Adjuster Memory Module X1 (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	3750	Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	RD / VT	3340	Battery Positive Voltage	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	2.5	RD / BN	3640	Battery Positive Voltage	I	—

K40D Driver Seat Adjuster Memory Module X2 (A45)



4332214

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 15512506
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5 OCS Series(BK)

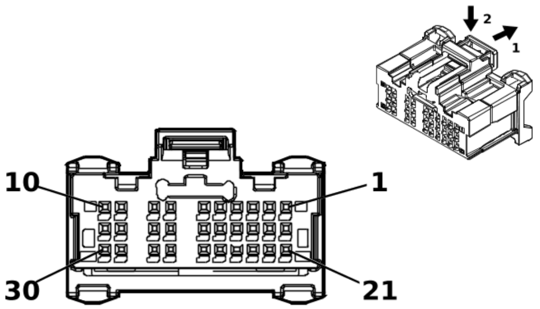
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

K40D Driver Seat Adjuster Memory Module X2 (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	YE / BU	285	Driver Seat Horizontal Motor Forward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	GN / YE	276	Driver Seat Recline Motor Forward Control	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	1.5	BU / VT	287	Driver Seat Front Vertical Motor Down Control	I	—
7	1.5	YE	282	Driver Seat Rear Vertical Motor Up Control	I	—
8	—	—	—	Not Occupied	—	—
9	1.5	BU / YE	277	Driver Seat Recline Motor Rearward Control	I	—
10	—	—	—	Not Occupied	—	—
11	1.5	GY / GN	284	Driver Seat Horizontal Motor Rearward Control	I	—
12	—	—	—	Not Occupied	—	—
13	1.5	GY / BU	283	Driver Seat Rear Vertical Motor Down Control	I	—
14 - 15	—	—	—	Not Occupied	—	—
16	1.5	GN / BN	286	Driver Seat Front Vertical Motor Up Control	I	—

K40D Driver Seat Adjuster Memory Module X3 (A45)



5202284

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 2309644-1
Service Connector: Service by Harness - See Part Catalog
Description: 30-Way F 0.5 MQS Series(BK)

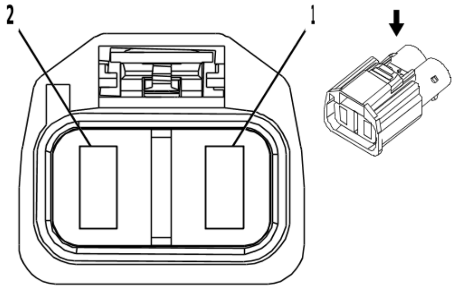
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	EL-35616-58 (BK)	No Tool Required

K40D Driver Seat Adjuster Memory Module X3 (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	BU / GN	614	Seat Memory Switch Set Signal	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.35	BN	3038	Driver Seat Right Rear Haptic Movement Motor Control	I	—
6	0.35	YE / BN	3037	Driver Seat Left Rear Haptic Movement Motor Control	I	—
7 - 8	—	—	—	Not Occupied	—	—
9	0.35	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	—
10	0.35	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	I	—
11 - 15	—	—	—	Not Occupied	—	—
16	0.35	WH	615	Seat Memory Switch Signal 1	I	—
17	—	—	—	Not Occupied	—	—
18	0.35	GN / GY	3758	Driver Seat Adjuster Memory Module LIN Bus 2	I	—
19	0.35	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	—
20	0.35	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	I	—
21 - 30	—	—	—	Not Occupied	—	—

K43 Power Steering Control Module X1



2748050

Connector Part Information

Harness Type: Power Steering Wiring Harness
OEM Connector: 7287-1990-30
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 9.5 Series, Sealed(BK)

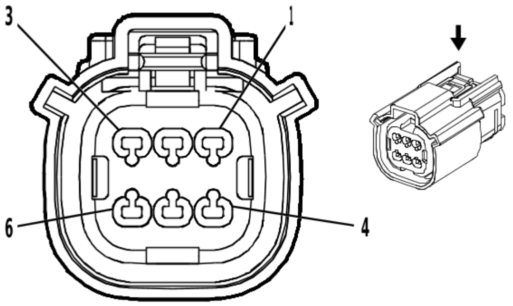
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-22 (RD)	No Tool Required

K43 Power Steering Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	16	BK	250	Ground	I	—
2	16	RD / VT	542	Battery Positive Voltage	I	—

K43 Power Steering Control Module X2



1986157

Connector Part Information

Harness Type: Power Steering Wiring Harness
OEM Connector: 33472-0674
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.5 MX Series, Sealed(BK)

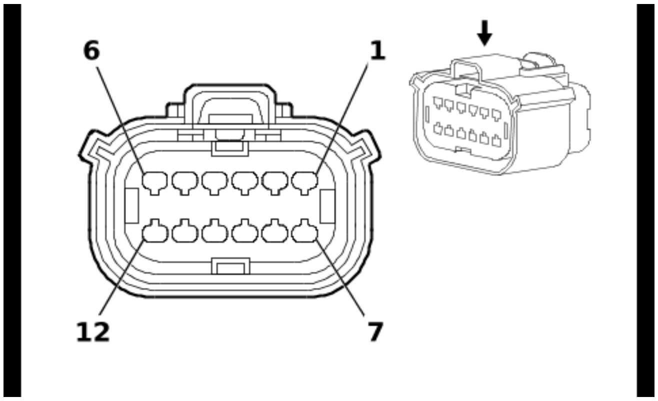
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

K43 Power Steering Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	—
2	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	—
3	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	—
4	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	—
5 - 6	—	—	—	Not Occupied	—	—

K43 Power Steering Control Module X3



1825165

Connector Part Information

Harness Type: Power Steering Control Module Wiring Harness - Shaft Sensor
OEM Connector: 33472-1252
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 1.5 MX Series, Sealed(BK)

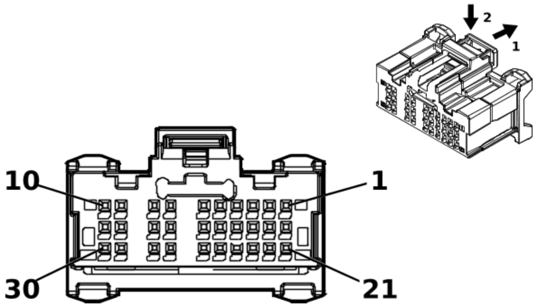
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K43 Power Steering Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BU / WH	8367	Handwheel Channel A Torque Pressure Sensor 1 SENT Signal	I	—
2	—	BN / RD	8366	Handwheel Channel A High Reference	I	—
3	—	BK / GN	8370	Handwheel Channel A Low Reference	I	—
4	—	GY / RD	8371	Handwheel Channel B High Reference	I	—
5	—	GN	8372	Handwheel Channel B Torque Pressure Sensor 1 SENT Signal	I	—
6	—	VT	8368	Handwheel Channel A Torque Pressure Sensor 2 SENT Signal	I	—
7	—	WH	8369	Handwheel Channel A Angle Position Sensor SENT Signal	I	—
8	—	BK / GY	8375	Handwheel Channel B Low Reference	I	—
9	—	GN / BU	8374	Handwheel Channel B Angle Position Sensor SENT Signal	I	—
10	—	YE / GN	8373	Handwheel Channel B Torque Pressure Sensor 2 SENT Signal	I	—
11 - 12	—	—	—	Not Occupied	—	—

K56 Serial Data Gateway Module X1



5202284

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 2309644-1
Service Connector: 84766507
Description: 30-Way F 0.5 MQS Series(BK)

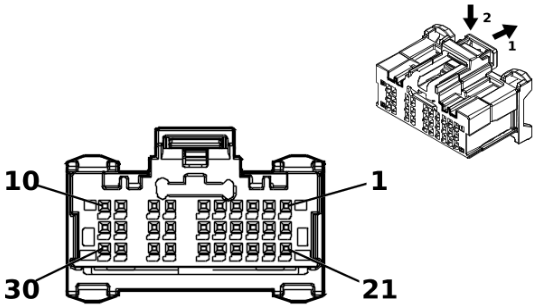
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58

K56 Serial Data Gateway Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / WH	6440	Battery Positive Voltage	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	BK / WH	2151	Signal Ground	I	—
5	0.35	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	—
6	0.35	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	—
7	0.35	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	—
8	0.35	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	I	—
9 - 14	—	—	—	Not Occupied	—	—
15	0.35	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	—
16	0.35	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	—
17	0.35	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	—
18	0.35	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	—
19	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	—
20	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	—
21 - 24	—	—	—	Not Occupied	—	—
25	0.35	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	—
26	0.35	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	—
27	0.35	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	—
28	0.35	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	—
29	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	—
30	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	—

K56 Serial Data Gateway Module X2



5203942

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 2309644-2
Service Connector: 84766509
Description: 30-Way F 0.5 MQS Series(BK with L-GY Front Housing)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	Service by Cable	No Tool Required	No Tool Required

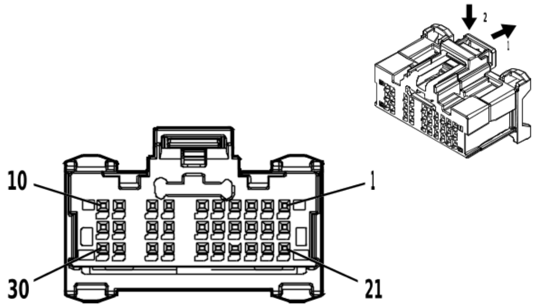
K56 Serial Data Gateway Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.35	BU / BK	4977	AUTOSAR CAN Bus [+] 3 Serial Data	I	—
4	0.35	WH	4976	AUTOSAR CAN Bus [-] 3 Serial Data	I	—
5	0.35	BK / GY	3559	Passive Start Switch 2 Low Reference	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	GN / VT	5199	Run/Crank Relay Coil Control	I	—
8	—	—	—	Not Occupied	—	—
9	0.35	YE / WH	4973	Ethernet Bus 1R [+]	II	—
10	0.35	YE	4972	Ethernet Bus 1R [-]	II	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.35	BU / BN	4983	AUTOSAR CAN Bus [+] 7 Serial Data	I	—
14	0.35	WH	4982	AUTOSAR CAN Bus [-] 7 Serial Data	I	—
15	0.35	GN / BK	3558	Passive Start Switch Signal 2	I	—
16	0.35	WH	4980	AUTOSAR CAN Bus [-] 6 Serial Data	I	—
17	0.35	GN	2578	Private Serial Data Presentation CAN Bus [+] 1 Serial Data	I	—
18	0.35	BN	2577	Private Serial Data Presentation CAN Bus [-] 1 Serial Data	I	—
19	0.35	WH	7207	Ethernet Bus 1 Enable Signal	I	—
20 - 22	—	—	—	Not Occupied	—	—
23	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	—
24	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	—

K56 Serial Data Gateway Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	—	—	—	Not Occupied	—	—
26	0.35	YE	4981	AUTOSAR CAN Bus [+] 6 Serial Data	I	—
27	0.35	VT	2580	Private Serial Data Presentation CAN Bus [+] 2 Serial Data	I	—
28	0.35	GY	2579	Private Serial Data Presentation CAN Bus [-] 2 Serial Data	I	—
29	0.35	GN / WH	4975	Ethernet Bus 1T [+]	II	—
30	0.35	GN	4974	Ethernet Bus 1T [-]	II	—

K56 Serial Data Gateway Module X3



4900333

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 2309644-3
Service Connector: 13519319
Description: 30-Way F 0.5 MQS Series(BK with D-GY Front Housing)

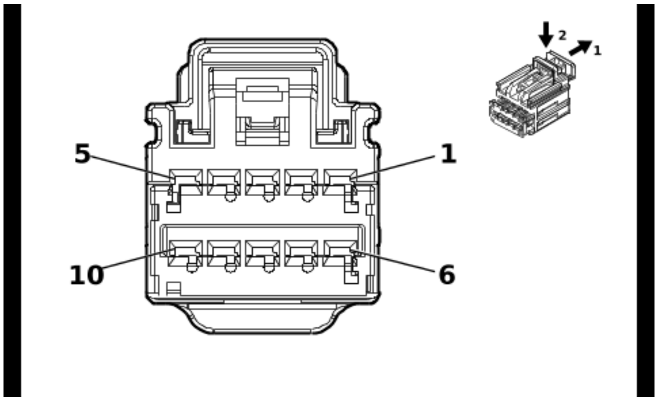
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	Service by Cable	No Tool Required	No Tool Required

K56 Serial Data Gateway Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	—
2	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.35	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	I	—
6	0.35	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	I	—
7	0.35	BU / WH	4758	Ethernet Bus 2 [+]	II	—
8	0.35	BU	4757	Ethernet Bus 2 [-]	II	—
9 - 24	—	—	—	Not Occupied	—	—
25	0.35	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	—
26	0.35	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	—
27 - 30	—	—	—	Not Occupied	—	—

K61 Sunroof Control Module (CAC)



6153939

Connector Part Information

Harness Type: Sunroof Wiring Harness
OEM Connector: 13590453
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5 OCS Series(BK)

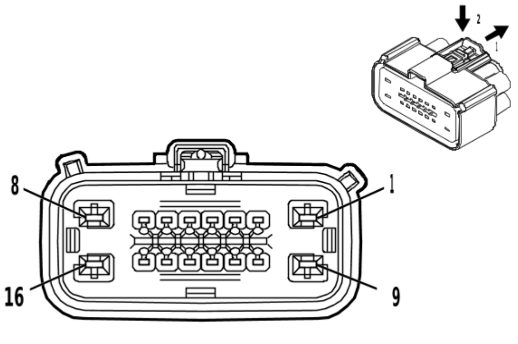
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K61 Sunroof Control Module (CAC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	—	BU / VT	5027	Sunroof Switch Serial Data 1 Signal	I	—
3	—	—	—	Not Occupied	—	—
4	—	WH / GN	3031	Sunroof Vent Switch Signal	I	—
5	—	—	—	Not Occupied	—	—
6	—	GN / WH	2854	Body Control Module LIN Bus 8	I	—
7	—	—	—	Not Occupied	—	—
8	—	RD / YE	2340	Battery Positive Voltage	I	—
9	—	—	—	Not Occupied	—	—
10	—	BK	1850	Ground	I	—

K67 Trailer Brake Control Module (JL1 & Z82)



4624589

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34985-4016
Service Connector: 13599889
Description: 16-Way F 1.5, 2.8 MX Series, Sealed(GY)

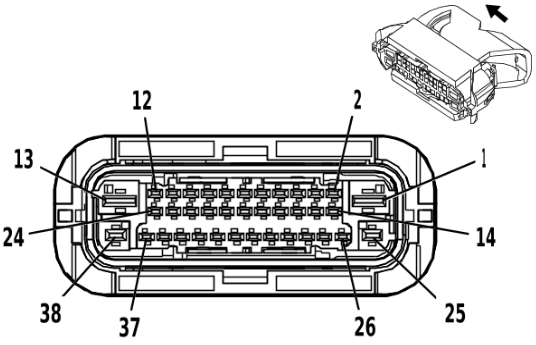
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576377	J-35616-35 (VT)	J-38125-12A
II	85528055	J-35616-2A (GY)	J-38125-217

K67 Trailer Brake Control Module (JL1 & Z82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD / VT	1242	Battery Positive Voltage	I	—
2	0.5	WH / BK	2223	Trailer Brake Apply Signal	II	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	YE / BK	2224	Trailer Brake Enable Signal	II	—
6 - 7	—	—	—	Not Occupied	—	—
8	2.5	BU	47	Trailer Auxiliary Control	I	—
9	2.5	BK	5550	Ground	I	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.5	GN / BU	2733	Brake System Control Module LIN Bus 2	II	—
13 - 16	—	—	—	Not Occupied	—	—

K68 Trailer Lamp Control Module (U1D & Z82)



5141918

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 35497871
Service Connector: 86825459
Description: 38-Way F 1.5, 2.8, 4.8 MCP Series, Sealed(BK with BN Inner Connector)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368624	J-35616-35 (VT)	J-38125-212
II	19369235	J-35616-14 (GN)	EL-38125-560A
III	85158596	J-35616-40 (BU)	EL-38125-560A

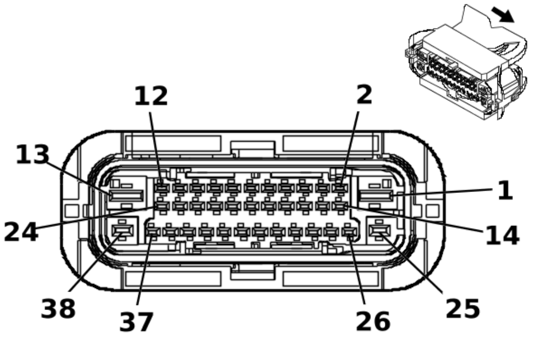
K68 Trailer Lamp Control Module (U1D & Z82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	RD / YE	5840	Battery Positive Voltage	III	—
2	0.75	YE / GY	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—
3	0.75	GN / VT	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.75	GN / WH	5189	Trailer Backup Lamp Control	II	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT / BK	739	Run/Crank Ignition 1 Voltage	II	—
11	0.5	BN / YE	820	Center High Mounted Stop Lamp Supply Voltage	II	—
12	—	—	—	Not Occupied	—	—
13	2.5	BK	5550	Ground	III	—
14 - 24	—	—	—	Not Occupied	—	—
25	1.5	GY / BN	2109	Trailer Park Lamp Control	I	—
26	—	—	—	Not Occupied	—	—
27	0.5	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	II	—
28	0.5	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	II	—
29	0.5	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	II	—
30	0.5	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	II	—
31	0.5	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	II	—
32	0.5	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	II	—
33 - 37	—	—	—	Not Occupied	—	—

K68 Trailer Lamp Control Module (U1D & Z82) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
38	2.5	RD / VT	5640	Battery Positive Voltage	I	—

K69 Transfer Case Control Module



5199340

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 35497867
Service Connector: 86825458
Description: 38-Way F 1.5, 2.8, 4.8 MCP Series, Sealed(BK with BN Inner Connector)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368624	J-35616-35 (VT)	J-38125-212
II	19369235	J-35616-14 (GN)	EL-38125-560A
III	85158596	J-35616-40 (BU)	EL-38125-560A

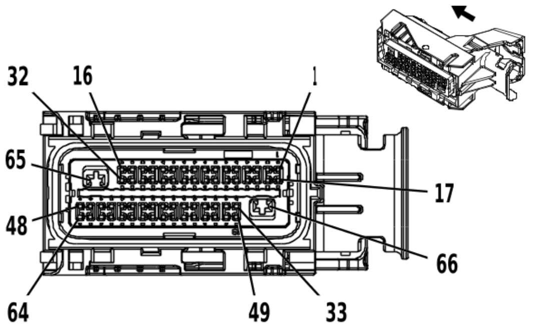
K69 Transfer Case Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	RD / WH	2242	Battery Positive Voltage	III	—
2	—	—	—	Not Occupied	—	—
3	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	—
4	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	—
5	0.5	WH / GN	7479	Rotary Position Sensor Signal	II	—
6	—	—	—	Not Occupied	—	—
7	0.5	YE	7474	Incremental Encoder Direction Signal	II	—
8	—	—	—	Not Occupied	—	—
9	0.5	YE / WH	1695	4WD Locked Range Indicator Control	II	—
10	—	—	—	Not Occupied	—	—
11	0.5	VT / GY	8017	Secondary Axle Motor Relay Control	II	—
12	0.5	GY / BK	1570	Front Axle Actuator Control	II	—
13	2.5	YE / VT	1553	Transfer Case Motor Counter Clockwise Control	III	—
14	—	—	—	Not Occupied	—	—
15	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	—
16	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	—
17	—	—	—	Not Occupied	—	—
18	0.5	VT / BK	2139	Run/Crank Ignition 1 Voltage	II	—
19	0.5	BU / GY	7473	Incremental Encoder Impulse Signal	II	—
20	0.5	WH / RD	7477	Gear Position Sensor 5V Reference	II	—

K69 Transfer Case Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
21 - 23	—	—	—	Not Occupied	—	—
24	0.5	BK	8015	Transfer Case Motor Low Reference	II	—
25	2.5	BK	450	Ground	I	—
26	—	—	—	Not Occupied	—	—
27	0.5	BK	8014	Transfer Case Lock Solenoid Low Reference	II	—
28 - 29	—	—	—	Not Occupied	—	—
30	0.5	YE / BK	7478	Gear Position Sensor Low Reference	II	—
31	0.5	WH / GN	7475	Incremental Encoder Sensor Voltage Reference	II	—
32	—	—	—	Not Occupied	—	—
33	0.75	BU	8013	Transfer Case Lock Solenoid Control 2	II	—
34	0.75	YE / BN	1569	Transfer Case Lock Solenoid Valve Control	II	—
35	—	—	—	Not Occupied	—	—
36	0.5	VT	7476	Incremental Encoder Sensor Low Reference	II	—
37	—	—	—	Not Occupied	—	—
38	2.5	YE / GY	1552	Transfer Case Motor Clockwise Control	I	—

K71 Transmission Control Module



3621452

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34822-0013
Service Connector: 19329822
Description: 66-Way F 0.64, 2.8 Series, Sealed(BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587518	J-35616-35 (VT)	J-38125-11A
II	19351723	J-35616-64B (L-BU)	J-38125-213

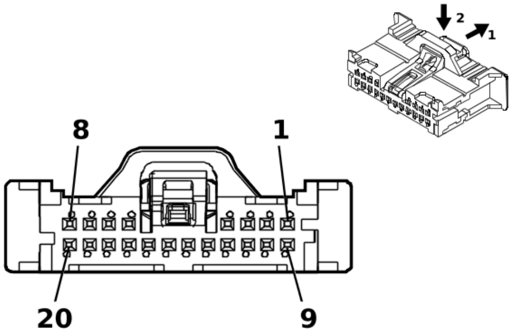
K71 Transmission Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BU	4507	Transmission Clutch H Control	II	—
2	0.5	BU	6401	Clutch Solenoid Valve B Control	II	—
3	0.5	GN / BU	1530	Transmission Line Pressure Control Solenoid Valve Control	II	—
4	—	—	—	Not Occupied	—	—
5	0.5	GY / RD	10817	Lubricant Circuit Pressure Sensor 5 Volt Reference	II	—
6	—	—	—	Not Occupied	—	—
7	0.5	YE / GN	4170	Transmission Output Shaft Speed Sensor Circuit 9V Reference	II	—
8	0.5	YE / BU	4171	Transmission Input Shaft Speed Sensor Circuit 9V Reference	II	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.5	BU / BK	10819	Lubricant Circuit Pressure Sensor Low Reference	II	—
12	—	—	—	Not Occupied	—	—
13	0.5	GN / VT	4510	Transmission Intermediate Speed Signal	II	—
14	0.5	GY / BU	6358	Output Speed Signal	II	—
15	0.5	GN / RD	6353	Input Speed Signal	II	—
16	—	—	—	Not Occupied	—	—
17	0.5	WH	4508	Transmission Clutch G Control	II	—
18	0.5	BN	6400	Clutch Solenoid Valve A Control	II	—
19	0.5	GY	6402	Clutch Solenoid Valve C Control	II	—

K71 Transmission Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	0.5	VT / WH	422	Torque Converter Clutch Solenoid Valve Control	II	—
21	0.5	GN / BN	6380	Torque Converter Clutch Enable Solenoid Valve A Control	II	—
22	0.5	YE / BN	6210	Torque Converter Clutch Enable Solenoid Valve B Control	II	—
23	—	—	—	Not Occupied	—	—
24	0.5	GN / WH	2968	Transmission Auxiliary Fluid Pump Control	II	—
25 - 27	—	—	—	Not Occupied	—	—
28	0.5	BK / BN	586	Transmission Fluid Temperature Sensor Low Reference	II	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.75	GN / GY	6387	Transmission High Side Driver 1 Control	II	—
34	—	—	—	Not Occupied	—	—
35	0.5	VT / BK	2139	Run/Crank Ignition 1 Voltage	II	—
36	—	—	—	Not Occupied	—	—
37	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	—
38	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	—
39 - 44	—	—	—	Not Occupied	—	—
45	0.5	GN / YE	10816	Lubricant Circuit Pressure Sensor Signal	II	—
46 - 48	—	—	—	Not Occupied	—	—
49	0.75	GY / BN	6388	Transmission High Side Driver 2 Control	II	—
50 - 52	—	—	—	Not Occupied	—	—
53	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	—
54	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	—
55 - 62	—	—	—	Not Occupied	—	—
63	0.5	BN / WH	585	Transmission Fluid Temperature Sensor Signal	II	—
64	0.5	BU / WH	3338	Transmission Internal Mode Switch Mode Control X	II	—
65	1.5	BK / WH	6251	Transmission Control Module Ground	I	—
66	0.75	RD / GN	1840	Battery Positive Voltage	I	—

K73 Telematic Control Module X1



5200955

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35068196
Service Connector: 84769280
Description: 20-Way F Mini 50 Series(BK)

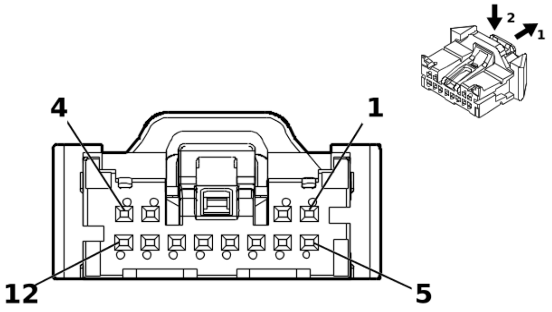
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	84944580	EL-35616-58 (BK)	EL-38125-58

K73 Telematic Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / BU	3240	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GN / BK	2515	Telematics Switch Supply Voltage	I	—
4	0.35	GN / WH	2514	Telematics Switch Signal	I	—
5	0.35	YE / VT	2516	Telematics Switch Green LED Indicator Control	I	—
6	0.35	BN / WH	2517	Telematics Switch Red LED Indicator Control	I	—
7	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	—
8	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	—
9	0.35	BK / WH	451	Signal Ground	I	—
10 - 18	—	—	—	Not Occupied	—	—
19	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	—
20	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	—

K73 Telematic Control Module X2



5360826

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35068239
Service Connector: 13529935
Description: 12-Way F 050 CTS Series(BK)

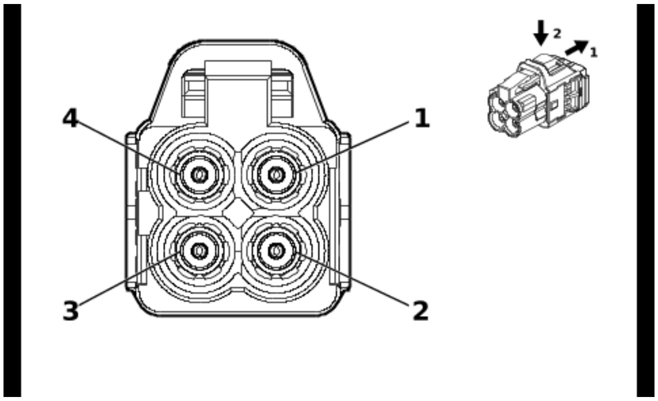
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	84944580	EL-35616-58 (BK)	EL-38125-58

K73 Telematic Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY / GN	4770	Emergency Call Backup Speaker [+] Control	I	—
2	0.35	WH / BK	4769	Emergency Call Backup Speaker [-] Control	I	—
3 - 5	—	—	—	Not Occupied	—	—
6	0.35	GY / YE	5149	Voice Recognition Audio Signal	I	—
7	0.35	BK / GY	5152	Voice Recognition Audio [-] Control	I	—
8	0.35	BU	655	Cellular Telephone Microphone Signal	I	—
9	0.35	BK / BN	654	Cellular Telephone Microphone Low Reference	I	—
10	0.35	Bare	1792	Low Reference	I	—
11 - 12	—	—	—	Not Occupied	—	—

K73 Telematic Control Module X3



5835118

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13544819
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 4-Way F Mini Coax Type(BK)

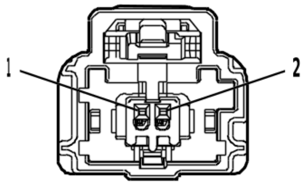
Terminal Part Information

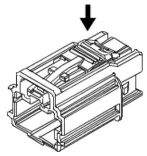
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K73 Telematic Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(GPS/Cell) Coaxial Antenna Cell/GPS combined Signal	I	—

K73 Telematic Control Module X7





4942391

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35122188
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 050 CTS Ethernet Series, Sealed(BK)

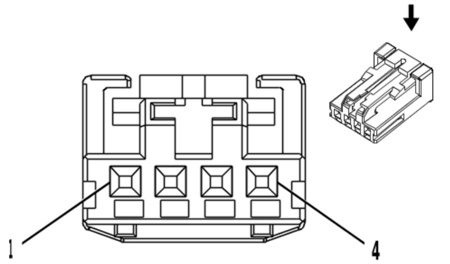
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Service by Cable	No Tool Required	No Tool Required

K73 Telematic Control Module X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0	GY / WH	7211	Ethernet Bus 4 [+]	I	—
2	0	GY	7210	Ethernet Bus 4 [-]	I	—

K77 Remote Function Actuator Module



2717162

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 1-936119-1
Service Connector: 19367524
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

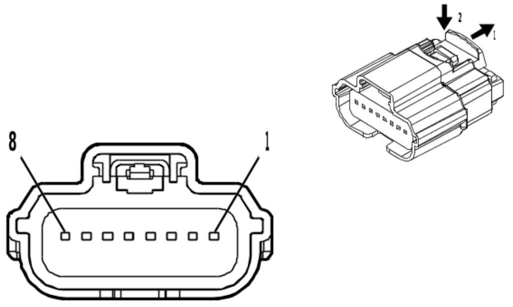
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K77 Remote Function Actuator Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / VT	1640	Battery Positive Voltage	I	—
2	0.35	GN / YE	2862	Body Control Module LIN Bus 16	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	BK / WH	451	Signal Ground	I	—

K85P Restraints Occupant Classification System Module - Passenger



4708234

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 31404-9110
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 64 Series, Sealed(BK)

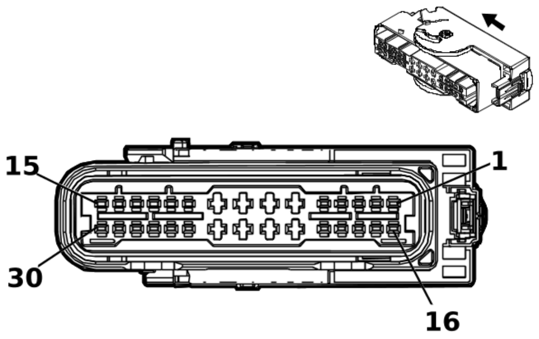
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

K85P Restraints Occupant Classification System Module - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD / GN	4440	Battery Positive Voltage	I	—
2	0.5	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	—
3	0.5	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	—
4	0.5	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	—
5	0.5	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	—
6	0.5	BK / WH	1351	Signal Ground	I	—
7	0.5	OG / BN	3947	Passenger Automatic Locking Retractor Switch Signal	I	—
8	0.5	GY / OG	3946	Passenger Automatic Locking Retractor Switch Low Reference	I	—

K111 Fuel Pump Power Control Module



3240109

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 5-2109446-2
Service Connector: 86545828
Description: 30-Way F 1.5, 2.8 MCP Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19329958	J-35616-2A (GY)	J-38125-11A
II	85533337	J-35616-35 (VT)	J-38125-11A

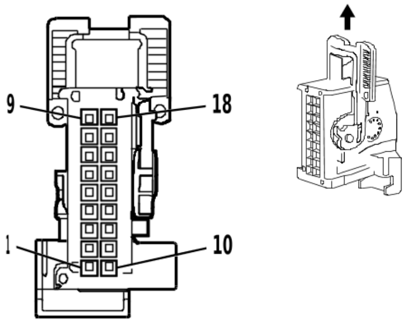
K111 Fuel Pump Power Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 6	—	—	—	Not Occupied	—	—
7	2.5	RD / VT	1940	Battery Positive Voltage	II	—
8	2.5	GY	120	Fuel Pump Control	II	—
9	2.5	YE / GY	4137	Fuel Pump Supply Voltage Phase 2	II	—
10	0.5	YE / RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—
11	0.5	BU / WH	890	Fuel Tank Pressure Sensor Signal	I	—
12	0.5	BN / RD	7445	Fuel Line Pressure Sensor 5V Reference	I	—
13	0.5	BU / GN	1936	Primary Fuel Level Sensor Signal	I	—
14	—	—	—	Not Occupied	—	—
15	0.5	BU / GY	4054	Private Serial Data Powertrain CAN Bus [-] Serial Data	I	—
16	0.5	VT / GN	4320	Powertrain Sensor Bus Enable	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	GN / GY	465	Fuel Pump Primary Relay Control	I	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	WH	1310	EVAP Vent Solenoid Valve Control	II	—
22	2.5	BK	750	Ground	II	—
23	0.5	BU	7444	Fuel Pump Assembly Shield Ground	II	—
24	2.5	WH / BN	4138	Fuel Pump Supply Voltage Phase 3	II	—
25	0.5	BK / BN	6284	Fuel Tank Pressure Sensor Low Reference	I	—
26	0.5	BU / WH	7446	Fuel Pressure Sensor Signal	I	—

K111 Fuel Pump Power Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
27	0.5	BK / YE	7447	Fuel Pressure Sensor Low Reference	I	—
28	0.5	BK / GN	6281	Fuel Level Sensor Low Reference	I	—
29	—	—	—	Not Occupied	—	—
30	0.5	WH	4055	Private Serial Data Powertrain CAN Bus [+] Serial Data	I	—

K157 Video Processing Module X1 ((UV2 / UXA) - UVB)



1567082

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1379102-1
Service Connector: 84976200
Description: 18-Way F Micro-Quadlock Series(BK)

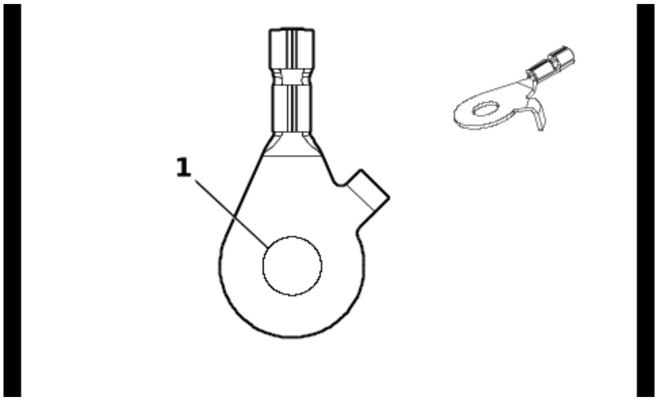
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300632	J-35616-64B (L-BU)	J-38125-215A

K157 Video Processing Module X1 ((UV2 / UXA) - UVB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK / WH	451	Signal Ground	I	—
4 - 9	—	—	—	Not Occupied	—	—
10	0.5	RD / VT	1640	Battery Positive Voltage	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.35	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	—
14	0.35	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	—
15	0.35	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	—
16	0.35	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	—
17 - 18	—	—	—	Not Occupied	—	—

K157 Video Processing Module X2 ((UV2 / UXA) - UVB)



6154799

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 84172962
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

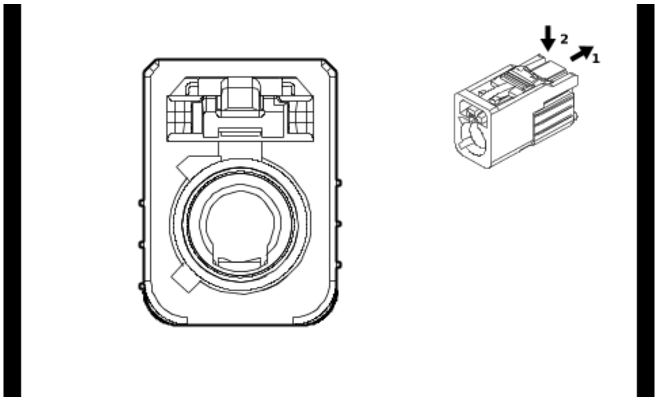
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K157 Video Processing Module X2 ((UV2 / UXA) - UVB)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BK	1350	Ground	I	—

K157 Video Processing Module X3 (UXA)



5630785

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13516049
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(BN)

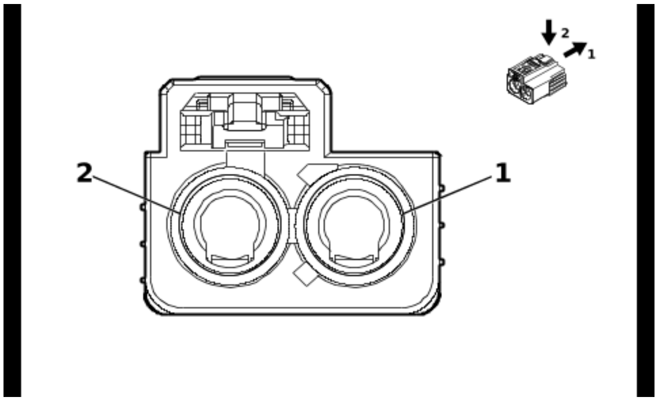
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K157 Video Processing Module X3 (UXA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	Video Processing Module Coaxial Video Signal	I	—

K157 Video Processing Module X4 (UV2 - (UVB & UXA))



5810832

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13516079
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Coax Type(BN)

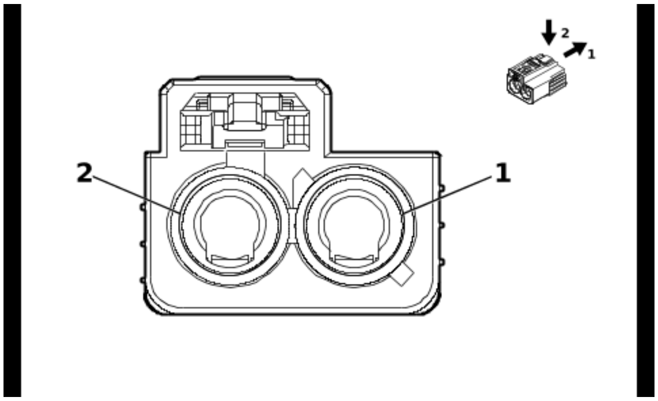
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K157 Video Processing Module X4 (UV2 - (UVB & UXA))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	(PDR) Front Vision Camera #2	I	—

K157 Video Processing Module X4 (UXA)



5810836

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13516082
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Coax Type(BG)

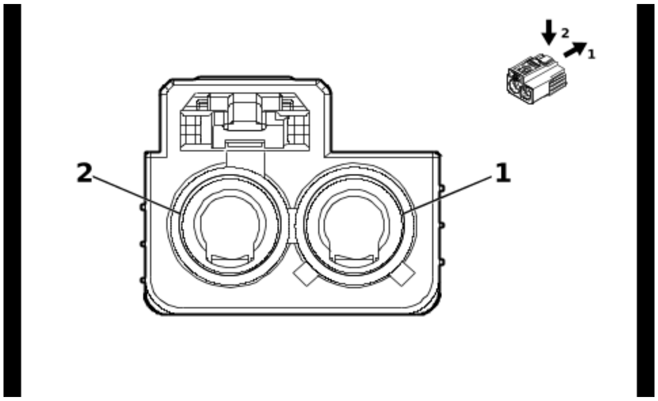
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K157 Video Processing Module X4 (UXA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
1_BG	0.1	Coax Cable	11352	Underbody Camera 2 LVDS (Low Voltage DIfferential Signaling) Coaxial Signal	I	—

K157 Video Processing Module X5 (UV2 - (UVB & UXA))



5810835

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13516083
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Coax Type(CU)

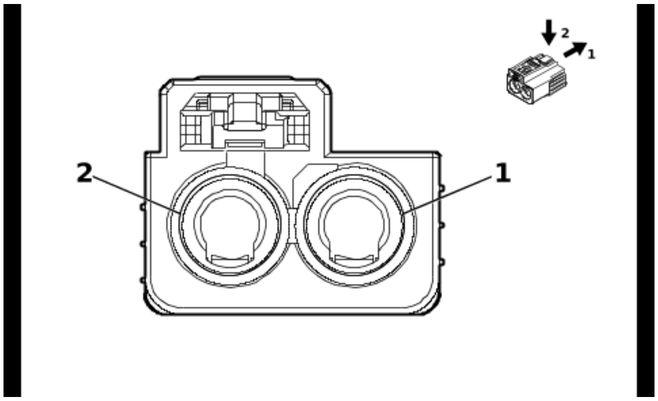
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K157 Video Processing Module X5 (UV2 - (UVB & UXA))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	LVDS	—	(PDR) Front Vision Camera #2	I	—

K157 Video Processing Module X5 (UXA)



5810827

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13516078
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Coax Type(GN)

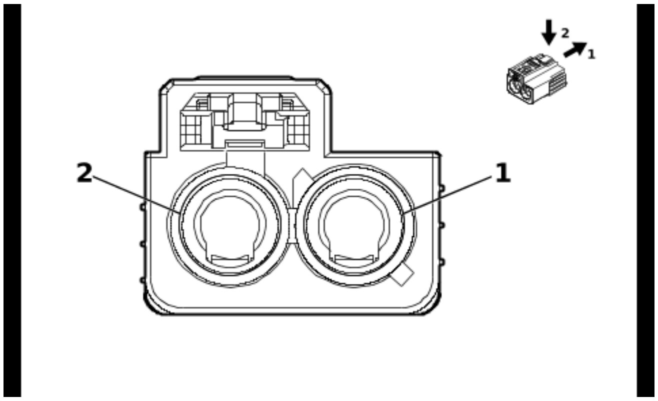
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K157 Video Processing Module X5 (UXA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
1_GN	0.1	Coax Cable	11348	Underbody Camera LVDS (Low Voltage DIfferential Signaling) Coaxial Signal	I	—

K157 Video Processing Module X6



5810836

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13516082
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Coax Type(BG)

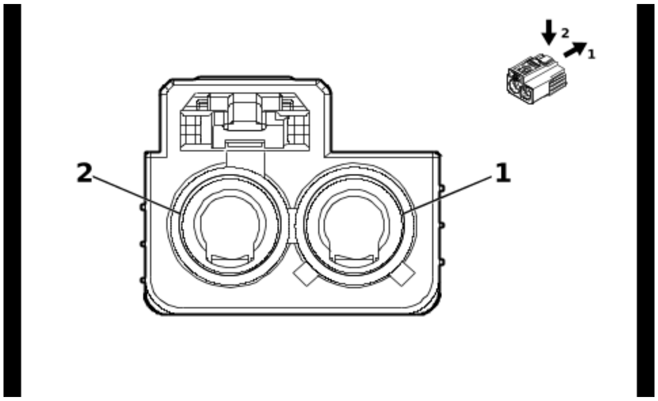
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K157 Video Processing Module X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
1_BN	—	Coax Cable	4724	Right Sideview Camera LVDS (Low Voltage Differential Signaling) Coaxial Signal	I	—
2_BN	—	Coax Cable	4725	Left Sideview Camera LVDS (Low Voltage Differential Signaling) Coaxial Signal	I	—

K157 Video Processing Module X7



5810835

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13516083
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Coax Type(CU)

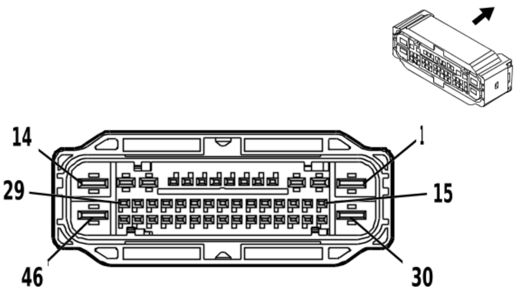
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K157 Video Processing Module X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
1_GN	—	Coax Cable	4722	Frontview Camera LVDS (Low Voltage Differential Signaling) Coaxial Signal	I	—
2_GN	—	Coax Cable	4721	Rearview Camera LVDS (Low Voltage Differential Signaling) Coaxial Signal	I	—

K160 Brake System Control Module



4162046

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33222138
Service Connector: 19333026
Description: 46-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575368	J-35616-35 (VT)	J-38125-36
II	19370818	J-35616-12 (BU)	J-38125-215A
III	84634921	J-35616-42 (RD)	J-38125-212

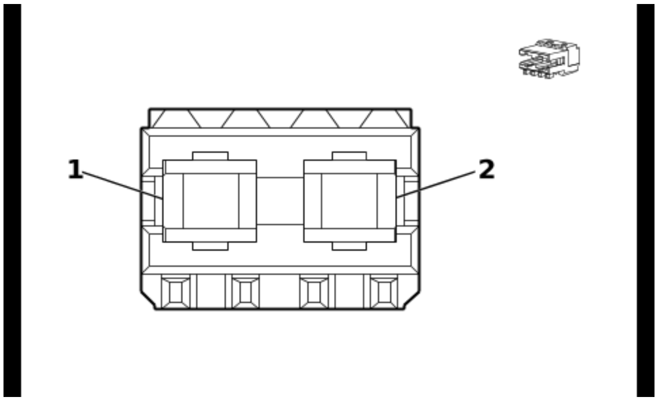
K160 Brake System Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	6	BK	150	Ground	III	—
2	2.5	WH	2001	Left Park Brake Motor Apply Control	I	—
3	2.5	GY / BK	4369	Left Park Brake Motor Low Reference	I	—
4	0.5	GY / WH	7064	Left Front Wheel Speed Sensor Control	II	—
5	0.5	GY	830	Left Front Wheel Speed Sensor Signal	II	—
6 - 8	—	—	—	Not Occupied	—	—
9	0.5	VT / WH	639	Run/Crank Ignition 1 Voltage	II	—
10	0.5	GY / BN	7065	Right Front Wheel Speed Sensor Control	II	—
11	0.5	YE	872	Right Front Wheel Speed Sensor Signal	II	—
12	2.5	GN / VT	1988	Right Park Brake Motor Apply Control	I	—
13	2.5	GY	4368	Right Park Brake Motor Low Reference	I	—
14	6	RD / BN	440	Battery Positive Voltage	III	—
15	0.5	GY / BK	7127	Left Rear Wheel Speed Sensor Control	II	—
16	0.5	BU	884	Left Rear Wheel Speed Sensor Signal	II	—
17	0.5	BU / BK	4977	AUTOSAR CAN Bus [+] 3 Serial Data	II	—
18	0.5	WH	4976	AUTOSAR CAN Bus [-] 3 Serial Data	II	—
19	0.5	YE / BK	2224	Trailer Brake Enable Signal	II	—
20	0.5	WH / BK	2223	Trailer Brake Apply Signal	II	—
21 - 22	—	—	—	Not Occupied	—	—
23	0.35	GN / YE	2731	Brake System Control Module LIN Bus 1	II	—

K160 Brake System Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	—	—	—	Not Occupied	—	—
25	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	—
26	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	—
27	0.5	GN / YE	1616	Rear Brake Pad Wear Sensor Signal	II	—
28	0.5	GY / YE	7128	Right Rear Wheel Speed Sensor Control	II	—
29	0.5	VT	882	Right Rear Wheel Speed Sensor Signal	II	—
30	6	BK	3550	Ground	III	—
31	0.5	GN / GY	333	Brake Fluid Level Signal	II	—
32	—	—	—	Not Occupied	—	—
33	0.5	BU / BK	4977	AUTOSAR CAN Bus [+] 3 Serial Data	II	—
34	0.5	WH	4976	AUTOSAR CAN Bus [-] 3 Serial Data	II	—
35	0.5	BN / BU	1602	Front Brake Pad Wear Sensor Signal	II	—
36	0.5	GN / BU	2733	Brake System Control Module LIN Bus 2	II	—
37 - 40	—	—	—	Not Occupied	—	—
41	0.5	BU / YE	4979	AUTOSAR CAN Bus [+] 2 Serial Data	II	—
42	0.5	WH	4978	AUTOSAR CAN Bus [-] 2 Serial Data	II	—
43 - 45	—	—	—	Not Occupied	—	—
46	6	RD / WH	342	Battery Positive Voltage	III	—

K174R Rear Body Structure Stop Lamp LED Driver Module - Right



5679432

Connector Part Information

Harness Type: Tail Lamp Wiring Harness
OEM Connector: 7260-002-004-960-000-00-G
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F IDC Housing Series(NA)

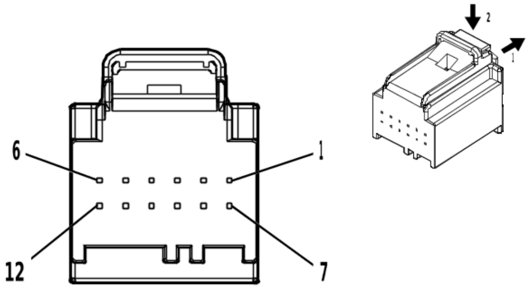
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K174R Rear Body Structure Stop Lamp LED Driver Module - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	0	—	I	—
2	0.5	BN	0	—	I	—

K182 Parking Assist Control Module X1 (UD7)



5095565

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13525987
Service Connector: 13525987
Description: 12-Way F 0.64 Series(BK)

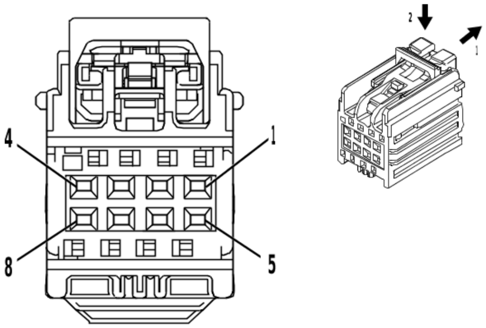
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K182 Parking Assist Control Module X1 (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	RD / WH	4740	Battery Positive Voltage	I	—
2	—	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	—
3	—	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	—
4	—	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	—
5	—	—	—	Not Occupied	—	—
6	—	BK / WH	2151	Signal Ground	I	—
7	—	—	—	Not Occupied	—	—
8	—	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	—
9	—	BU	4987	AUTOSAR CAN Bus [+] 1 Serial Data	I	—
10	—	WH	4986	AUTOSAR CAN Bus [-] 1 Serial Data	I	—
11 - 12	—	—	—	Not Occupied	—	—

K182 Parking Assist Control Module X2 (UD7)



4280711

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 13593893
Service Connector: 19355209
Description: 8-Way F 0.64 Kaizen Series(GY)

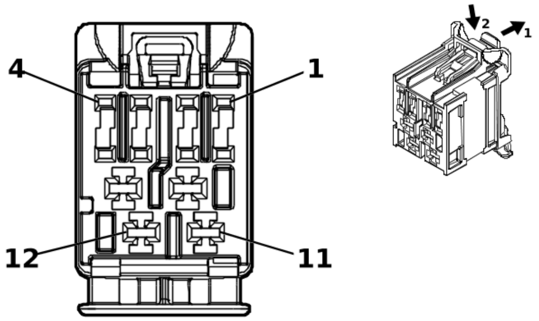
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

K182 Parking Assist Control Module X2 (UD7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	—	YE / WH	2377	Right Rear Middle Parking Assist Sensor Signal	I	—
3	—	YE	2375	Left Rear Outer Parking Assist Sensor Signal	I	—
4	—	BN / WH	2374	Object Sensor Voltage Reference	I	—
5	—	YE / VT	2378	Right Rear Outer Parking Assist Sensor Signal	I	—
6	—	YE / BU	2376	Left Rear Middle Parking Assist Sensor Signal	I	—
7	—	—	—	Not Occupied	—	—
8	—	BK / GY	2379	Object Sensor Low Reference	I	—

K219 Lighting Control Module X1



5203784

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 160026-0003
Service Connector: 13509990
Description: 12-Way F 1.2, 2.8 stAK50h Series(L-PU)

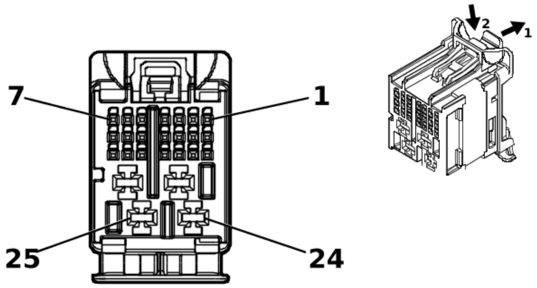
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	84729890	J-35616-12 (BU)	J-38125-215A
II	87814662	J-35616-4A (PU)	J-38125-557

K219 Lighting Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BU	7538	Left Front DRL Control	I	—
2 - 4	—	—	—	Not Occupied	—	—
5	0.5	BU / WH	1314	Left Front Turn Signal Lamp Control	I	—
6	0.5	GN / WH	24	Backup Lamp Control	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	WH / VT	1430	Exterior Courtesy Lamp Control	I	—
9	1.5	RD / GY	1740	Battery Positive Voltage	II	—
10	0.75	YE	712	Left Headlamp Low Beam Control	II	—
11	—	—	—	Not Occupied	—	—
12	0.75	WH	711	Left Headlamp High Beam Control	II	—

K219 Lighting Control Module X2



5203807

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 160027-0012
Service Connector: 13534966
Description: 25-Way F 0.5 MQS, 2.8 MCP Series(GY with GY Inner Connector)

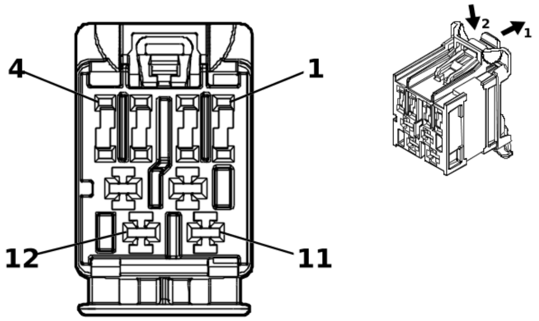
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	87814662	J-35616-4A (PU)	J-38125-557

K219 Lighting Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / YE	1254	Left Front Park Lamp Control	I	—
2	0.35	BU / GN	1253	Right Front Park Lamp Control	I	—
3	0.35	BN / GY	2268	Windshield Washer Relay Control	I	—
4	0.35	BU / BN	38	Backup Lamp Relay Control	I	—
5 - 9	—	—	—	Not Occupied	—	—
10	0.35	BN / GN	196	Windshield Wiper Motor Park Switch Signal	I	—
11	0.35	VT / BK	6568	Front Turn Signal Lamp Feedback Signal	I	—
12	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	I	—
13	—	—	—	Not Occupied	—	—
14	0.35	VT	185	Low Washer Fluid Indicator Control	I	—
15 - 18	—	—	—	Not Occupied	—	—
19	0.35	WH / BN	7055	Auxiliary Park Lamp Relay Control	I	—
20	0.35	WH / YE	7545	Right Front Turn Signal Lamp Feedback Signal	I	—
21	0.35	WH / VT	860	Windshield Wiper Switch High Signal	I	—
22	1.5	RD / GN	1540	Battery Positive Voltage	II	—
23	1	RD / VT	1640	Battery Positive Voltage	II	—
24 - 25	—	—	—	Not Occupied	—	—

K219 Lighting Control Module X3



5203797

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 160026-0002
Service Connector: 13509989
Description: 12-Way F 1.2, 2.8 stAK50h Series(GN)

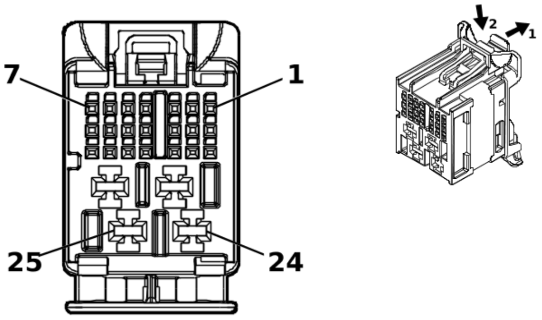
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	84729890	J-35616-12 (BU)	J-38125-215A
II	87814662	J-35616-4A (PU)	J-38125-557

K219 Lighting Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.5	BU / BN	7539	Right Front DRL Control	I	—
5	—	—	—	Not Occupied	—	—
6	0.5	GN / VT	1315	Right Front Turn Signal Lamp Control	I	—
7	0.5	BN / GY	5061	Left Front Fog Lamp Control	I	—
8	—	—	—	Not Occupied	—	—
9	1.5	RD / BN	1440	Battery Positive Voltage	II	—
10	1.5	RD / WH	1340	Battery Positive Voltage	II	—
11	0.75	WH	311	Right Headlamp High Beam Control	II	—
12	1	YE	312	Right Headlamp Low Beam Control	II	—

K219 Lighting Control Module X4



5203416

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 160027-0015
Service Connector: 13534969
Description: 25-Way F 0.5 MQS, 2.8 MCP Series(PU with GY Inner Connector)

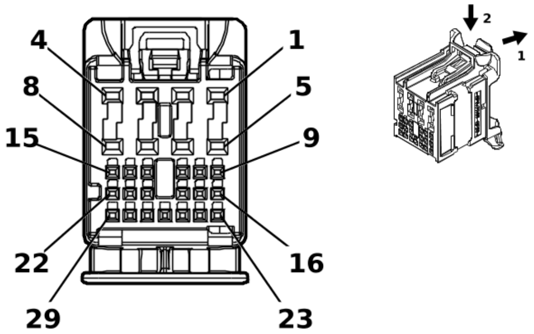
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	87814662	J-35616-4A (PU)	J-38125-557

K219 Lighting Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	—
4	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	—
5	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	—
6	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	—
7	0.35	WH / BU	6311	Cruise/ETC/TCC Brake Signal	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.35	WH / GN	4102	AUTOSAR CAN Bus [-] 9 Serial Data	I	—
11	0.35	BU / GN	4103	AUTOSAR CAN Bus [+] 9 Serial Data	I	—
12 - 21	—	—	—	Not Occupied	—	—
22	1	RD / BN	1140	Battery Positive Voltage	II	—
23	1.5	BK / WH	451	Signal Ground	II	—
24	1	RD / BU	1240	Battery Positive Voltage	II	—
25	1.5	BK / WH	451	Signal Ground	II	—

K219 Lighting Control Module X5



5203373

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 160029-0013
Service Connector: 13534975
Description: 29-Way F 0.5 NANO, 1.2 MCON, stAK50h Series(BU with GY Inner Connector)

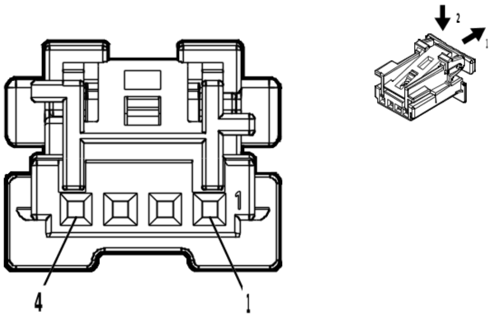
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370262	EL-35616-58 (BK)	EL-38125-58
II	84729890	J-35616-12 (BU)	J-38125-215A

K219 Lighting Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	BN / GY	6995	Right Rear Park Lamp Control	II	—
3	—	—	—	Not Occupied	—	—
4	0.5	BU / VT	1335	Right Rear Turn Signal Lamp Control 2	II	—
5	—	—	—	Not Occupied	—	—
6	0.5	BN / BU	6993	Left Rear Park Lamp Control	II	—
7	—	—	—	Not Occupied	—	—
8	0.5	BU / WH	1334	Left Rear Turn Signal Lamp Control 2	II	—
9	—	—	—	Not Occupied	—	—
10	0.35	GN / WH	2270	Rear Window Washer Relay Control	I	—
11	0.35	GY	1715	Windshield Wiper Switch High Signal	I	—
13	0.35	GN / BN	319	Right Rear Trailer Stop/Turn Lamp Control	I	—
14 - 17	—	—	—	Not Occupied	—	—
18	0.35	VT / WH	1139	Run/Crank Ignition 1 Voltage	I	—
20 - 24	—	—	—	Not Occupied	—	—
25	0.35	BN / YE	820	Center High Mounted Stop Lamp Supply Voltage	I	—
26 - 27	—	—	—	Not Occupied	—	—
28	0.35	GN / YE	6846	Rear License Plate Lamp Control	I	—
29	0.35	YE / BU	318	Left Rear Trailer Stop/Turn Lamp Control	I	—

M4P Programmable Air Inlet Valve Actuator



4997407

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 13511018
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

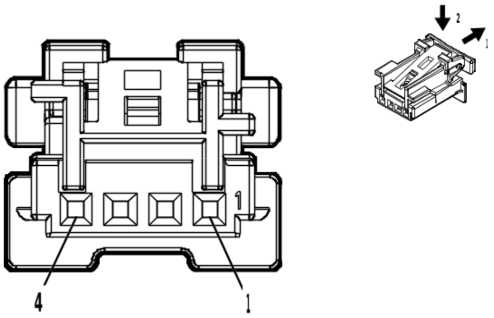
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M4P Programmable Air Inlet Valve Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK	2050	Ground	I	—
2	—	GN / VT	2852	Body Control Module LIN Bus 6	I	—
3	—	BK	2050	Ground	I	—
4	—	WH / YE	4634	HVAC Remote Enable Signal	I	—

M6PL Programmable Temperature Valve Actuator - Left



4997407

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 13511018
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

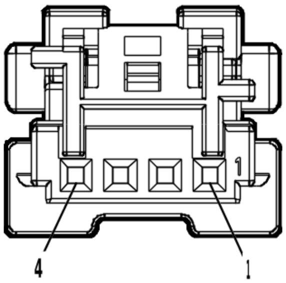
Terminal Part Information

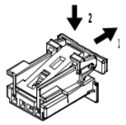
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M6PL Programmable Temperature Valve Actuator - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK	2050	Ground	I	—
2	—	GN / VT	2852	Body Control Module LIN Bus 6	I	—
3	—	BK	2050	Ground	I	—
4	—	WH / YE	4634	HVAC Remote Enable Signal	I	—

M6PR Programmable Temperature Valve Actuator - Right





4997407

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 13511018
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

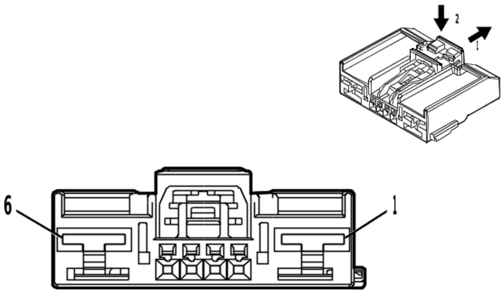
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M6PR Programmable Temperature Valve Actuator - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK	2050	Ground	I	—
2	—	GN / VT	2852	Body Control Module LIN Bus 6	I	—
3	—	—	—	Not Occupied	—	—
4	—	WH / YE	4634	HVAC Remote Enable Signal	I	—

M8 Blower Motor



4650258

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 7289-7139-30
Service Connector: 19356432
Description: 6-Way F 0.64, 6.3 Series(BK)

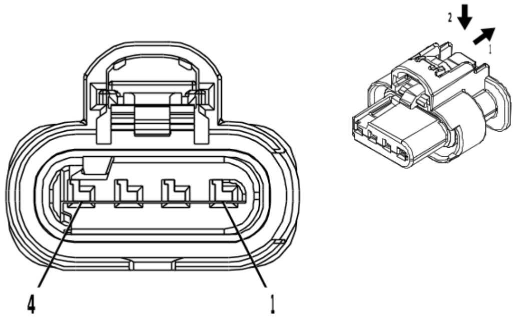
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required
II	Not required	J-35616-64B (L-BU)	No Tool Required

M8 Blower Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD / WH	2040	Battery Positive Voltage	I	—
2	0.35	BU / GY	754	Blower Motor Speed Control	II	—
3	0.35	GN / BU	761	Blower Speed Feedback Signal	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	2.5	BK	4250	Ground	I	—

M26 Front Drive Axle Actuator (NP0 / NQH)



4210809

Connector Part Information

Harness Type: Power Steering Wiring Harness
OEM Connector: 1-2296696-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 MCON-CB Series, Sealed(BK)

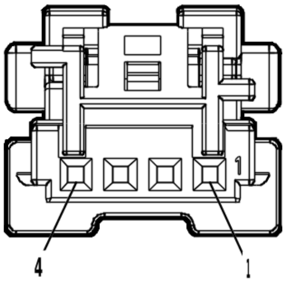
Terminal Part Information

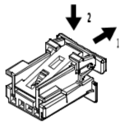
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

M26 Front Drive Axle Actuator (NP0 / NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	8016	Secondary Axle Motor Control	I	—
2	0.5	GY / BK	1570	Front Axle Actuator Control	I	—
3	0.5	YE / WH	1695	4WD Locked Range Indicator Control	I	—
4	0.5	BK	2250	Ground	I	—

M37P Programmable Mode Valve Actuator





4997407

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: 13511018
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

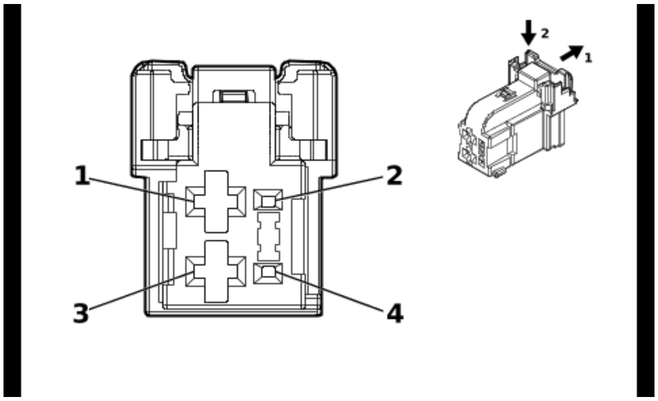
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M37P Programmable Mode Valve Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK	2050	Ground	I	—
2	—	GN / VT	2852	Body Control Module LIN Bus 6	I	—
3	—	—	—	Not Occupied	—	—
4	—	WH / YE	4634	HVAC Remote Enable Signal	I	—

M50D Front Seat Tilt Adjuster Actuator - Driver (A45 / A2X)



5410027

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 2316171-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BK)

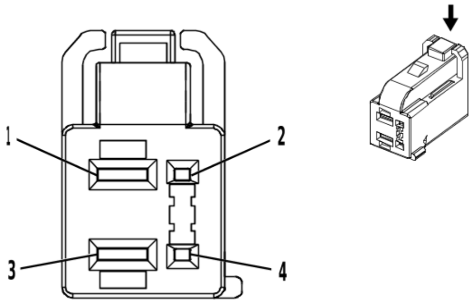
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M50D Front Seat Tilt Adjuster Actuator - Driver (A45 / A2X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BU / VT	287	Driver Seat Front Vertical Motor Down Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	GN / BN	286	Driver Seat Front Vertical Motor Up Control	I	—
4	—	—	—	Not Occupied	—	—

M51D Front Seat Adjuster Actuator - Driver (A45 / A2X)



3683652

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 13583828
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BK)

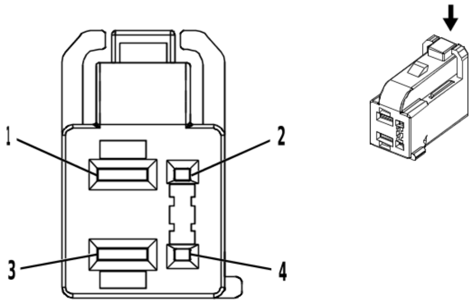
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M51D Front Seat Adjuster Actuator - Driver (A45 / A2X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY / GN	284	Driver Seat Horizontal Motor Rearward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	YE / BU	285	Driver Seat Horizontal Motor Forward Control	I	—
4	—	—	—	Not Occupied	—	—

M51P Front Seat Adjuster Actuator - Passenger



3683652

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 13583828
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BK)

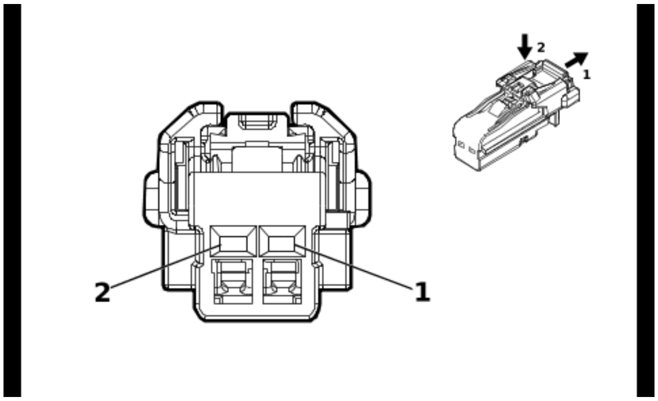
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M51P Front Seat Adjuster Actuator - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	YE / BU	290	Passenger Seat Horizontal Motor Rearward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	YE / WH	296	Passenger Seat Horizontal Motor Forward Control	I	—
4	—	—	—	Not Occupied	—	—

M53D Front Seat Back Lumbar Motor - Driver (AL9)



4115691

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 6098-8988
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series(BK)

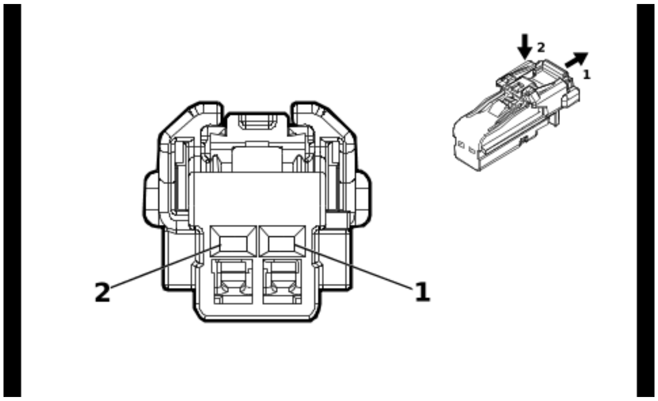
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

M53D Front Seat Back Lumbar Motor - Driver (AL9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU	611	Driver Seat Lumbar Support Motor Forward Control	I	—
2	0.75	VT	610	Driver Seat Lumbar Support Motor Backward Control	I	—

M53P Front Seat Back Lumbar Motor - Passenger



4115691

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 6098-8988
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series(BK)

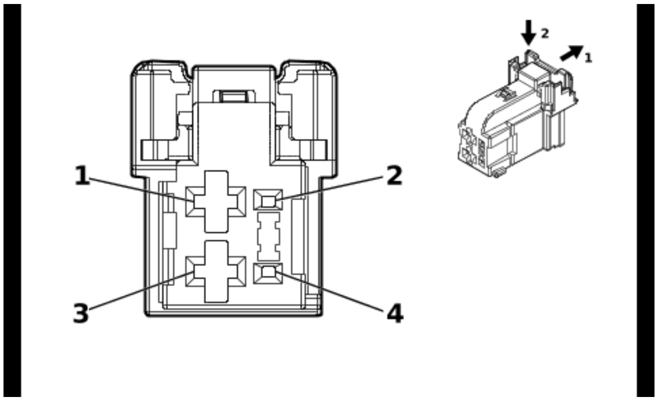
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

M53P Front Seat Back Lumbar Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU	211	Passenger Seat Lumbar Support Motor Forward Control	I	—
2	0.75	VT	210	Passenger Seat Lumbar Support Motor Backward Control	I	—

M55D Front Seat Vertical Adjuster Actuator - Driver



5410027

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 2316171-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BK)

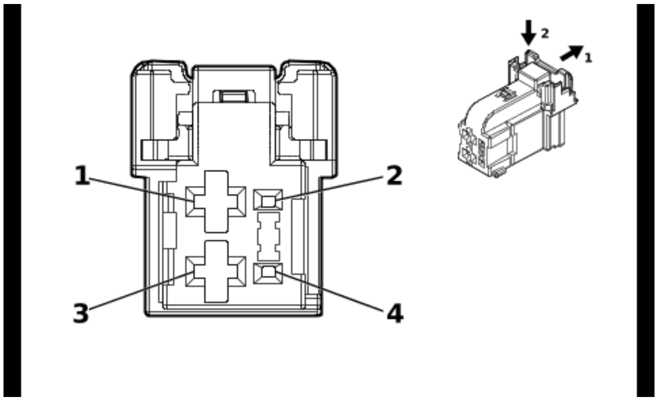
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M55D Front Seat Vertical Adjuster Actuator - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY / BU	283	Driver Seat Rear Vertical Motor Down Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	YE	282	Driver Seat Rear Vertical Motor Up Control	I	—
4	—	—	—	Not Occupied	—	—

M55P Front Seat Vertical Adjuster Actuator - Passenger



5410027

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 2316171-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BK)

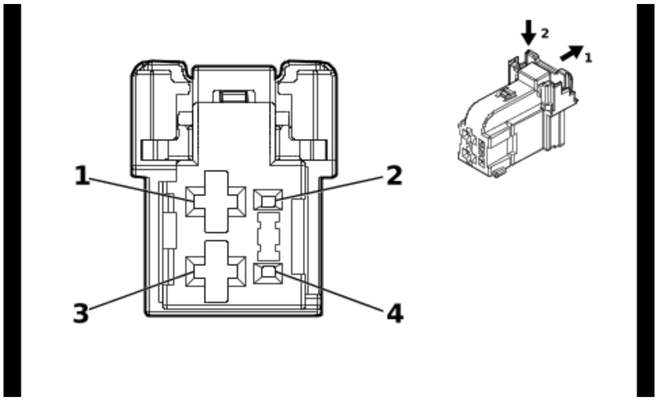
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M55P Front Seat Vertical Adjuster Actuator - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BU / WH	289	Passenger Seat Rear Vertical Motor Down Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	GN / WH	288	Passenger Seat Rear Vertical Motor Up Control	I	—
4	—	—	—	Not Occupied	—	—

M56D Front Seat Recliner Actuator - Driver (A45 / A2X)



5410027

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 2316171-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BK)

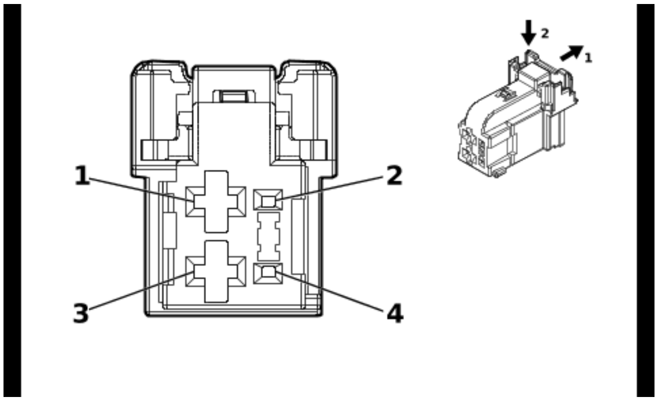
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M56D Front Seat Recliner Actuator - Driver (A45 / A2X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN / YE	276	Driver Seat Recline Motor Forward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	BU / YE	277	Driver Seat Recline Motor Rearward Control	I	—
4	—	—	—	Not Occupied	—	—

M56P Front Seat Recliner Actuator - Passenger



5410027

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 2316171-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64, 2.8 Series(BK)

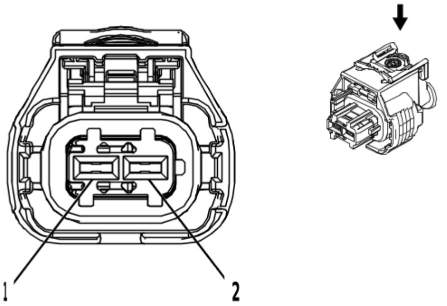
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M56P Front Seat Recliner Actuator - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GN	76	Passenger Seat Recline Motor Forward Control	I	—
2	—	—	—	Not Occupied	—	—
3	1.5	BU / BN	77	Passenger Seat Recline Motor Rearward Control	I	—
4	—	—	—	Not Occupied	—	—

M64 Starter X1



2577394

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1928405714
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed(BK)

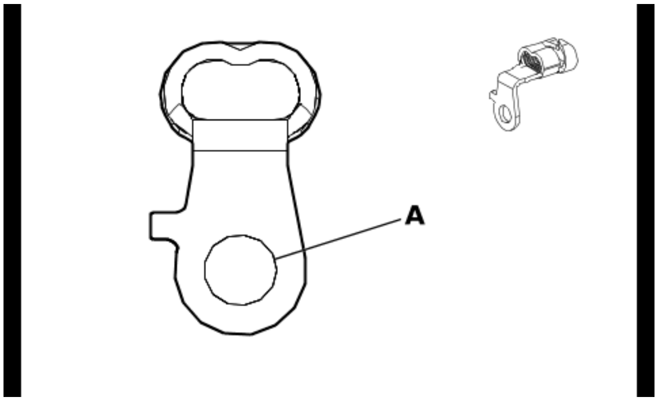
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M64 Starter X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE	6	Starter Solenoid Crank Ignition Voltage	I	—
2	2.5	YE / GN	4358	Starter Pinion Solenoid Voltage	I	—

M64 Starter X2



5524606

Connector Part Information

Harness Type: Battery Negative Cable
OEM Connector: 1133401
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

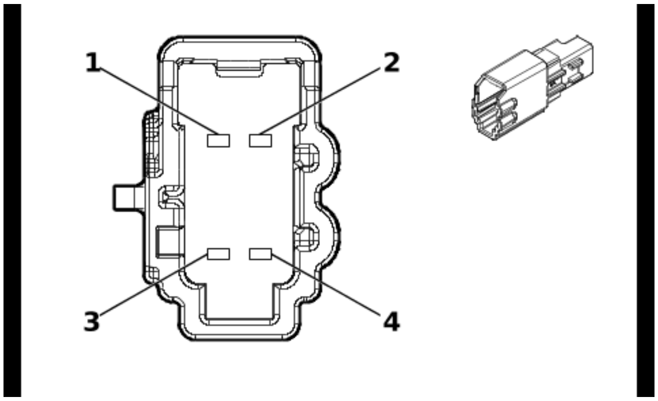
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M64 Starter X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	RD / YE	2	Battery Positive Voltage	I	—

M73A Front Seat Back Ventilation Blower - Driver (KU9)



5423974

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 6098-9049
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 MCON Series(GY)

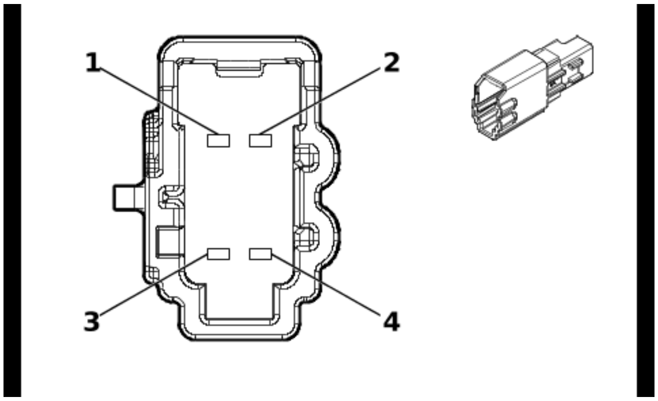
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-17 (L-GN)	No Tool Required

M73A Front Seat Back Ventilation Blower - Driver (KU9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GN	839	Run/Crank Ignition 1 Voltage	I	—
2	0.5	GN / VT	5906	Driver Seat Blower Motor Control 1	I	—
3	0.5	BK	3750	Ground	I	—
4	—	—	—	Not Occupied	—	—

M73B Front Seat Back Ventilation Blower - Passenger (KU9)



5423974

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 6098-9049
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 MCON Series(GY)

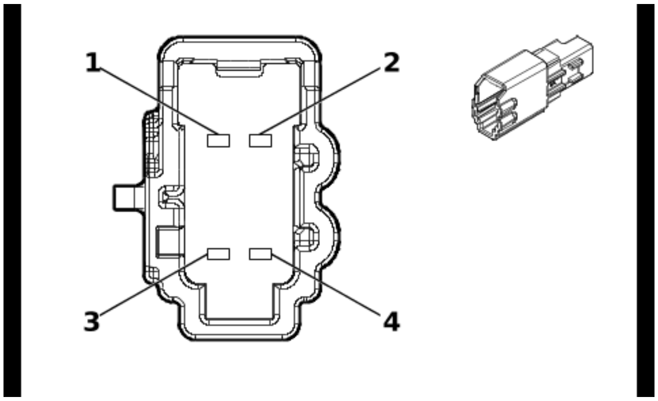
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-17 (L-GN)	No Tool Required

M73B Front Seat Back Ventilation Blower - Passenger (KU9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GN	839	Run/Crank Ignition 1 Voltage	I	—
2	0.5	VT / WH	5908	Passenger Seat Blower Motor Control 1	I	—
3	0.5	BK	4250	Ground	I	—
4	—	—	—	Not Occupied	—	—

M73D Front Seat Cushion Ventilation Blower - Driver (KU9)



5423974

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 6098-9049
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 MCON Series(GY)

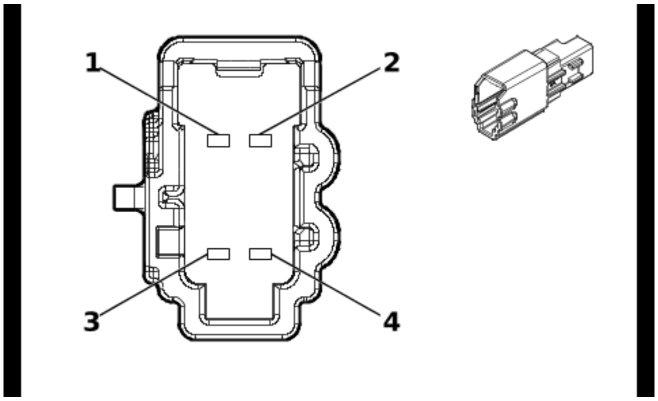
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-17 (L-GN)	No Tool Required

M73D Front Seat Cushion Ventilation Blower - Driver (KU9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GN	839	Run/Crank Ignition 1 Voltage	I	—
2	0.5	GN / VT	5906	Driver Seat Blower Motor Control 1	I	—
3	0.5	BK	3750	Ground	I	—
4	—	—	—	Not Occupied	—	—

M73P Front Seat Cushion Ventilation Blower - Passenger (KU9)



5423974

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 6098-9049
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2 MCON Series(GY)

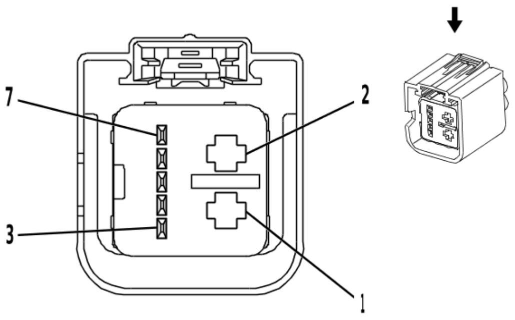
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-17 (L-GN)	No Tool Required

M73P Front Seat Cushion Ventilation Blower - Passenger (KU9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GN	839	Run/Crank Ignition 1 Voltage	I	—
2	0.5	VT / WH	5908	Passenger Seat Blower Motor Control 1	I	—
3	0.5	BK	4250	Ground	I	—
4	—	—	—	Not Occupied	—	—

M74D Front Side Door Window Regulator Motor - Driver (AXG)



2282932

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 1-1732115-1
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 0.64, 2.8 Kaizen Timer Series, Sealed(GY)

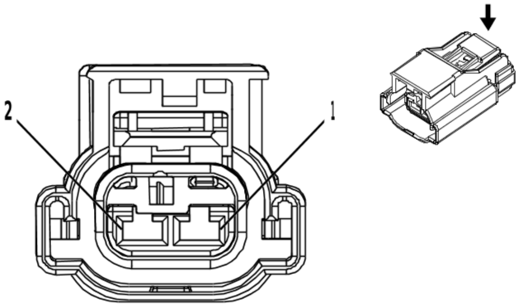
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required
II	Not required	J-35616-64B (L-BU)	No Tool Required

M74D Front Side Door Window Regulator Motor - Driver (AXG)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1150	Ground	I	—
2	2.5	RD / GY	3540	Battery Positive Voltage	I	—
3	0.35	GY / GN	2763	Window Switch Left Front Up Signal	II	—
4	0.35	GN / YE	6134	Body Control Module LIN Bus 3	II	—
5	0.35	GN	2766	Power Window Switch Left Front Express Signal	II	—
6	0.35	GY	745	Left Front Door Ajar Switch Signal	II	—
7	0.35	WH / BN	2764	Window Switch Left Front Down Signal	II	—

M74LR Rear Side Door Window Regulator Motor - Left



2716333

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Left
OEM Connector: 54200220N
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed(BK)

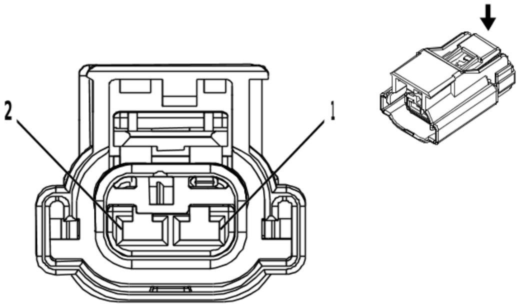
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M74LR Rear Side Door Window Regulator Motor - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	BU / VT	668	Left Rear Window Motor Up Control	I	—
2	2	YE / BU	669	Left Rear Window Motor Down Control	I	—

M74P Front Side Door Window Regulator Motor - Passenger



2716333

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 54200220N
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed(BK)

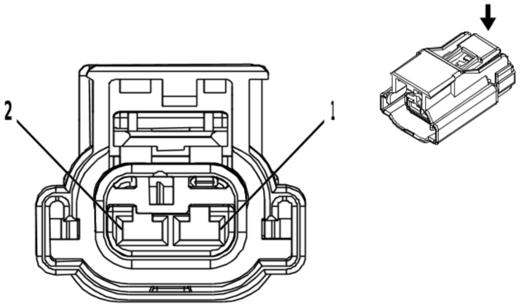
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M74P Front Side Door Window Regulator Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	GN / GY	666	Right Front Window Motor Up Control	I	—
2	2	YE / BU	667	Right Front Window Motor Down Control	I	—

M74RR Rear Side Door Window Regulator Motor - Right



2716333

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Right
OEM Connector: 54200220N
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Series, Sealed(BK)

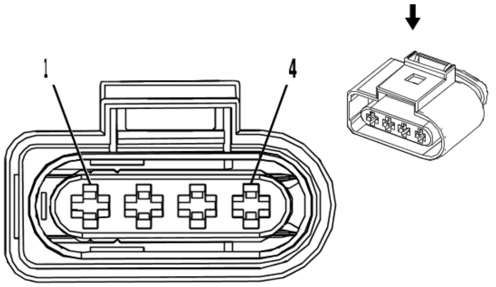
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M74RR Rear Side Door Window Regulator Motor - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	BU / GY	670	Right Rear Window Motor Up Control	I	—
2	2	GN / BK	671	Right Rear Window Motor Down Control	I	—

M75 Windshield Wiper Motor



2474722

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 638245-2
Service Connector: 85596545
Description: 4-Way F Junior Power Timer Series, Sealed(BK)

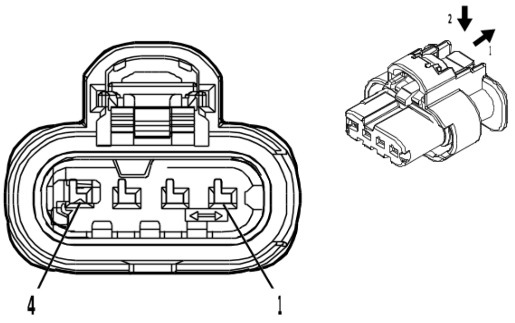
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

M75 Windshield Wiper Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / GN	196	Windshield Wiper Motor Park Switch Signal	I	—
2	2.5	YE / BN	95	Windshield Wiper Motor Low Speed Control	I	—
3	2.5	BK	150	Ground	I	—
4	2.5	WH	92	Windshield Wiper Motor High Speed Control	I	—

M96 Active Grille Air Shutter Actuator



4934614

Connector Part Information

Harness Type: Radiator Extension Harness
OEM Connector: 13514087
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 MCON-CB Series, Sealed(BK)

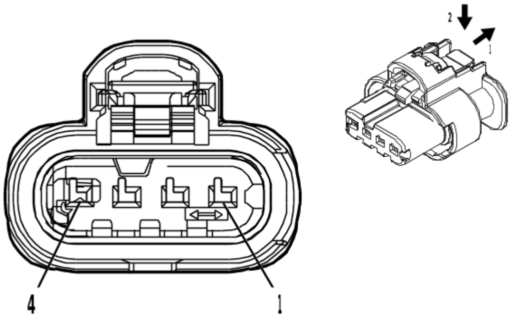
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

M96 Active Grille Air Shutter Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	VT / BU	5705	Powertrain Main Relay Control	I	—
2	—	GN / VT	4621	Engine Control Module LIN Bus 1	I	—
3	—	—	—	Not Occupied	—	—
4	—	BK	150	Ground	I	—

M96B Active Grille Air Shutter Actuator 2



4934614

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 1-2296696-2
Service Connector: 85519071
Description: 4-Way F 1.2 MCON-CB Series, Sealed(BK)

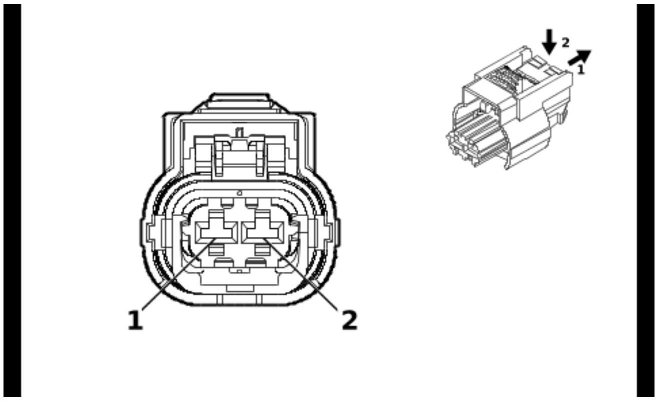
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

M96B Active Grille Air Shutter Actuator 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	5705	Powertrain Main Relay Control	I	—
2	0.5	GN / VT	4621	Engine Control Module LIN Bus 1	I	—
3	0.5	BK	150	Ground	I	—
4	0.5	BK	150	Ground	I	—

M104L Parking Brake Actuator - Left



4992524

Connector Part Information

Harness Type: Chassis Rear Wiring Harness Extension Harness
OEM Connector: 35182447
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 MCP Series, Sealed(BK)

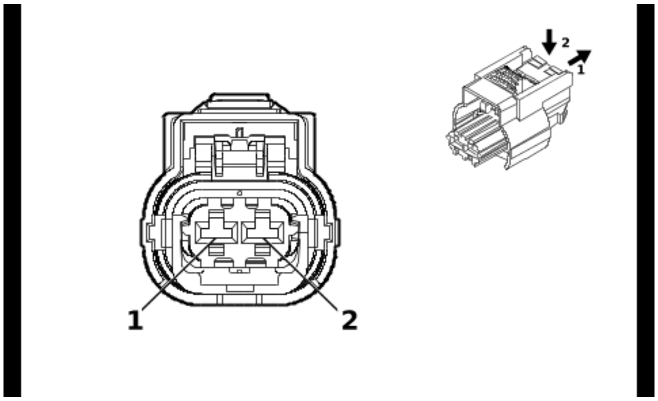
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M104L Parking Brake Actuator - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	WH	2001	Left Park Brake Motor Apply Control	I	—
2	2.5	GY / BK	4369	Left Park Brake Motor Low Reference	I	—

M104R Parking Brake Actuator - Right



4992524

Connector Part Information

Harness Type: Chassis Rear Wiring Harness Extension Harness
OEM Connector: 35182447
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 MCP Series, Sealed(BK)

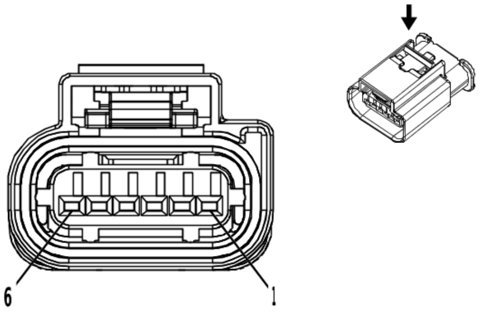
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

M104R Parking Brake Actuator - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	GN / VT	1988	Right Park Brake Motor Apply Control	I	—
2	2.5	GY	4368	Right Park Brake Motor Low Reference	I	—

M128 Turbocharger Wastegate Actuator



3747579

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 2272975-5
Service Connector: 19352911
Description: 6-Way F 1.2 MCON Series, Sealed(BK)

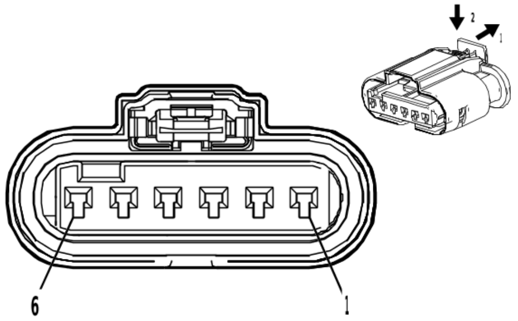
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

M128 Turbocharger Wastegate Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
2	0.5	WH	2590	Turbocharger Wastegate Motor Feedback Signal	I	—
3	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
4	0.75	WH / BU	2592	Turbocharger Wastegate Motor Close Control	I	—
5	0.75	WH / BN	2591	Turbocharger Wastegate Motor Open Control	I	—
6	—	—	—	Not Occupied	—	—

M129A Intake Camshaft Profile Actuator 1



3960142

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34900-6219
Service Connector: 85005020
Description: 6-Way F 1.2 MCON-LL Series, Sealed(BK)

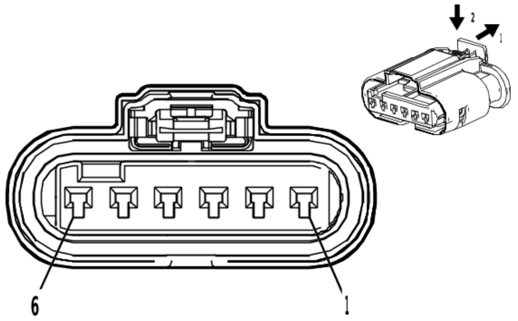
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

M129A Intake Camshaft Profile Actuator 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / GY	3615	Intake Camshaft Profile Actuator 1 Control A	I	—
2	0.5	BU / WH	3589	Intake Camshaft Profile Actuator 1 Position Sensor Signal	I	—
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
4	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
6	0.5	GN / BK	3616	Intake Camshaft Profile Actuator 1 Control B	I	—

M129B Intake Camshaft Profile Actuator 2



3960142

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34900-6219
Service Connector: 85005020
Description: 6-Way F 1.2 MCON-LL Series, Sealed(BK)

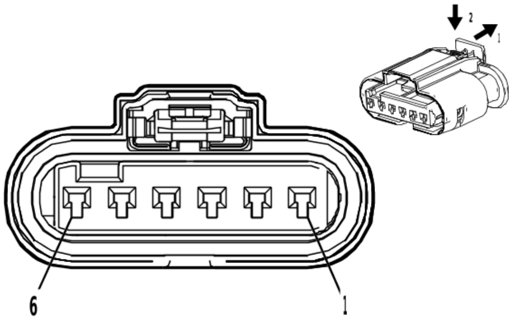
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

M129B Intake Camshaft Profile Actuator 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN	3585	Intake Camshaft Profile Actuator 2 Control A	I	—
2	0.5	GN / WH	3592	Intake Camshaft Profile Actuator 2 Position Sensor Signal	I	—
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
4	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
6	0.5	BU	3584	Intake Camshaft Profile Actuator 2 Control B	I	—

M129C Intake Camshaft Profile Actuator 3



3960142

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34900-6219
Service Connector: 85005020
Description: 6-Way F 1.2 MCON-LL Series, Sealed(BK)

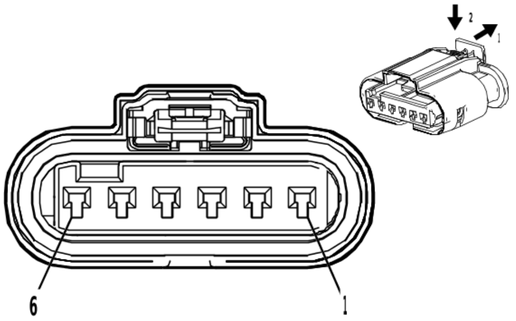
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

M129C Intake Camshaft Profile Actuator 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / BU	3587	Intake Camshaft Profile Actuator 3 Control A	I	—
2	0.5	BK / GN	3593	Intake Camshaft Profile Actuator 3 Position Sensor Signal	I	—
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
4	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
6	0.5	GY	3586	Intake Camshaft Profile Actuator 3 Control B	I	—

M129D Intake Camshaft Profile Actuator 4



3960142

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34900-6219
Service Connector: 85005020
Description: 6-Way F 1.2 MCON-LL Series, Sealed(BK)

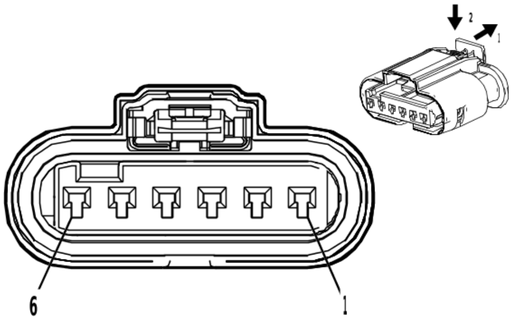
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

M129D Intake Camshaft Profile Actuator 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / YE	1402	Intake Camshaft Profile Actuator 4 Control A	I	—
2	0.5	YE / BN	1702	Intake Camshaft Profile Actuator 4 Position Sensor Signal	I	—
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
4	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
6	0.5	GY / YE	1502	Intake Camshaft Profile Actuator 4 Control B	I	—

M130B Exhaust Camshaft Profile Actuator 2



3960142

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34900-6219
Service Connector: 85005020
Description: 6-Way F 1.2 MCON-LL Series, Sealed(BK)

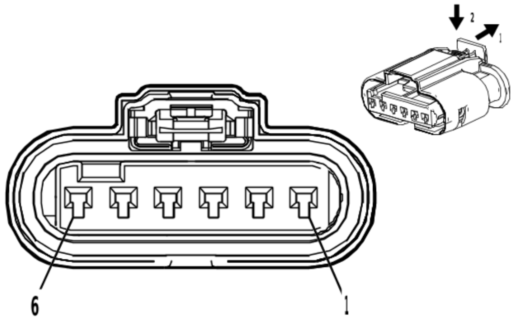
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

M130B Exhaust Camshaft Profile Actuator 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE / VT	6265	Exhaust Camshaft Profile Actuator 2 Control B	I	—
2	0.5	GN / BK	6266	Exhaust Camshaft Profile Actuator 2 Position Sensor Signal	I	—
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
4	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
6	0.5	VT / BK	6264	Exhaust Camshaft Profile Actuator 2 Control A	I	—

M130C Exhaust Camshaft Profile Actuator 3



3960142

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34900-6219
Service Connector: 85005020
Description: 6-Way F 1.2 MCON-LL Series, Sealed(BK)

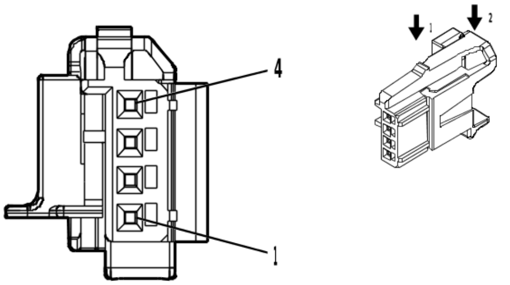
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

M130C Exhaust Camshaft Profile Actuator 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BN	6262	Exhaust Camshaft Profile Actuator 3 Control B	I	—
2	0.5	YE	6263	Exhaust Camshaft Profile Actuator 3 Position Sensor Signal	I	—
3	0.5	BK / YE	548	Engine Control Sensors Low Reference 1	I	—
4	0.5	BU / RD	460	Engine Control Sensors 5 Volt Reference 1	I	—
5	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
6	0.5	GN / BN	6261	Exhaust Camshaft Profile Actuator 3 Control A	I	—

P2 Automatic Transmission Control Indicator



5092142

Connector Part Information

Harness Type: Front Floor Console Wiring Harness Extension Harness
OEM Connector: 2294399-5
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 MQS Series

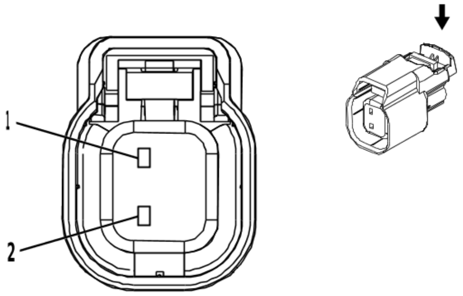
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

P2 Automatic Transmission Control Indicator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / VT	4759	Transmission Shift Lever Position Indicator 2 Control	I	—
2	0.35	GN / BU	6133	Body Control Module LIN Bus 2	I	—
3	0.35	BK	2050	Ground	I	—
4	—	—	—	Not Occupied	—	—

P13 Horn



2792100

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 34062-0027
Service Connector: 87821959
Description: 2-Way F 1.5 Series, Sealed(BK)

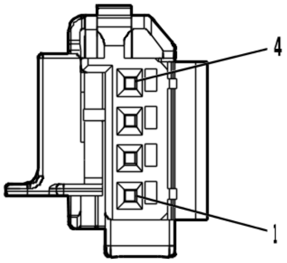
Terminal Part Information

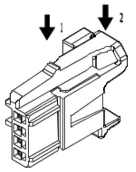
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P13 Horn

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	250	Ground	I	—
2	0.75	BN / GY	29	Horn Control	I	—

P14 Instrument Panel Airbag Arming Status Display





5092142

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 2294399-5
Service Connector: 84766302
Description: 4-Way F 0.64 MQS Series

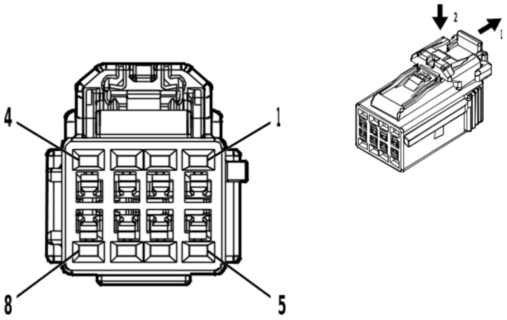
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

P14 Instrument Panel Airbag Arming Status Display

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / VT	4040	Battery Positive Voltage	I	—
2	0.35	BU	2307	Passenger Air Bag On Indicator Control	I	—
3	0.35	GN	2308	Passenger Air Bag Off Indicator Control	I	—
4	0.35 0.35	GN VT / WH	3118 5234	Roof Rail Air Bag Disable Indicator Control Passenger Seat Belt Indicator Control	I I	C91 - C91

P16 Instrument Panel Cluster Control Module X1



5086387

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 6098-8443
Service Connector: 84613126
Description: 8-Way F 1.2 Series(BK)

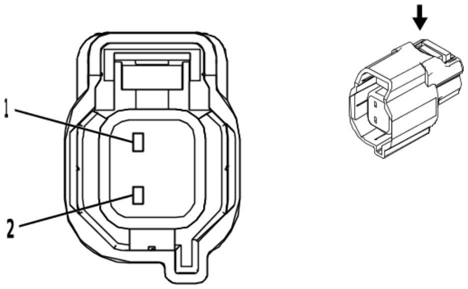
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

P16 Instrument Panel Cluster Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / BN	1440	Battery Positive Voltage	I	—
2 - 7	—	—	—	Not Occupied	—	—
8	0.35	BK	2050	Ground	I	—

P19AG Radio Front Side Door Speaker - Left (UQA)



2900396

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 34062-0026
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(L-GY)

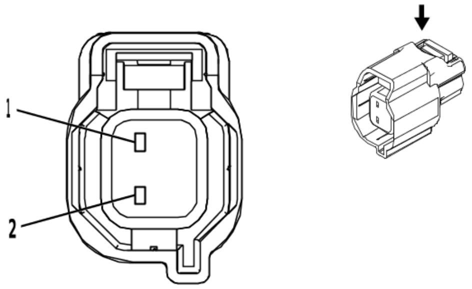
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P19AG Radio Front Side Door Speaker - Left (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BN / BU	118	Left Front Speaker [-] Control 1	I	—
2	1	BU	201	Left Front Speaker 1 [+] Control	I	—

P19AH Radio Front Side Door Speaker - Right (UQA)



2900396

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 34062-0026
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(L-GY)

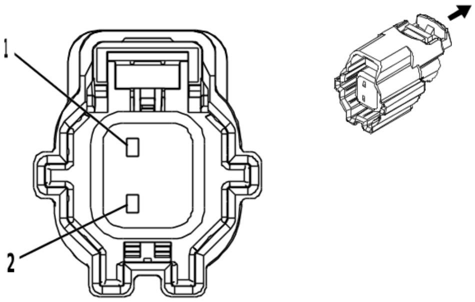
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P19AH Radio Front Side Door Speaker - Right (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE / BK	117	Right Front Speaker [-] Control 1	I	—
2	1	YE	200	Right Front Speaker 1 [+] Control	I	—

P19AL Radio Rear Side Door Speaker - Left (UQ3)



4223204

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Left
OEM Connector: 34062-0044
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 MX Series, Sealed(BK)

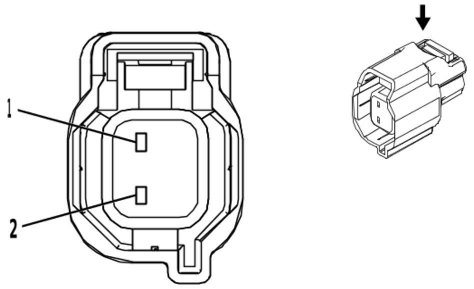
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P19AL Radio Rear Side Door Speaker - Left (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	GN / BK	116	Left Rear Speaker [-] Control	I	—
2	0.75	GN	199	Left Rear Speaker [+] Control	I	—

P19AL Radio Rear Side Door Speaker - Left (UQA)



2900396

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Left
OEM Connector: 34062-0026
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(L-GY)

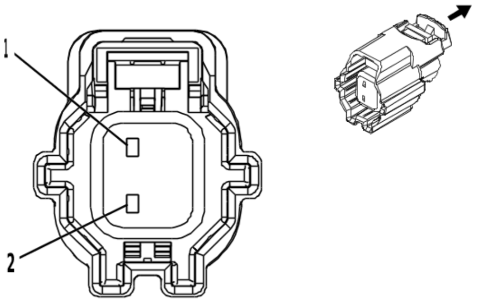
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19AL Radio Rear Side Door Speaker - Left (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / BK	116	Left Rear Speaker [-] Control	I	—
2	0.5	GN	199	Left Rear Speaker [+] Control	I	—

P19AM Radio Rear Side Door Speaker - Right (UQ3)



4223204

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Right
OEM Connector: 34062-0044
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 MX Series, Sealed(BK)

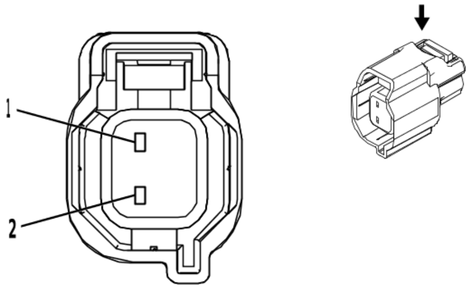
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-2A (GY)	No Tool Required

P19AM Radio Rear Side Door Speaker - Right (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BU / BK	115	Right Rear Speaker [-] Control	I	—
2	0.75	WH	46	Right Rear Speaker [+] Control	I	—

P19AM Radio Rear Side Door Speaker - Right (UQA)



2900396

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Right
OEM Connector: 34062-0026
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed(L-GY)

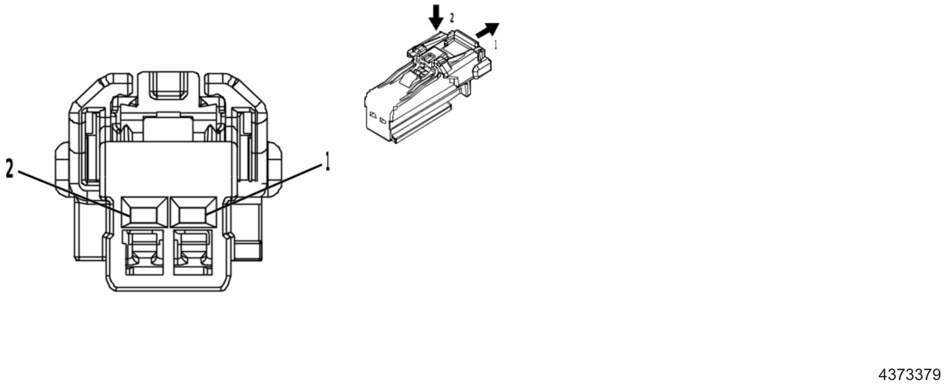
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

P19AM Radio Rear Side Door Speaker - Right (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / BK	115	Right Rear Speaker [-] Control	I	—
2	0.5	WH	46	Right Rear Speaker [+] Control	I	—

P19B Radio Front Center Speaker (UQA)



Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 6098-8989
Service Connector: 19369632
Description: 2-Way F 1.2 MCON Series(GY)

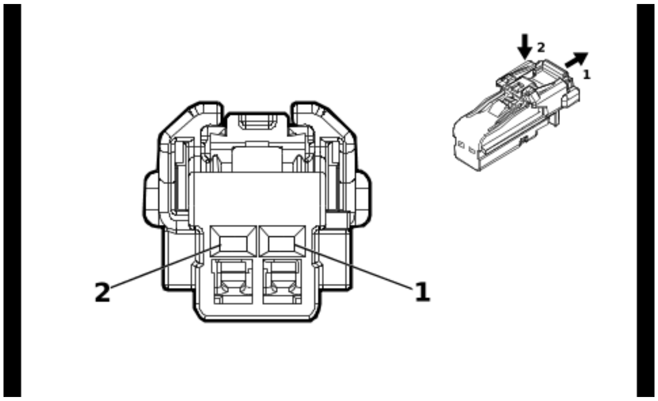
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

P19B Radio Front Center Speaker (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / YE	1960	Front Center Speaker [-] Control	I	—
2	0.5	YE / WH	1860	Front Center Speaker [+] Control	I	—

P19J Radio Front Speaker - Instrument Panel Left (UQ3)



4115691

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 6098-8988
Service Connector: 87816612
Description: 2-Way F 1.2 MCON Series(BK)

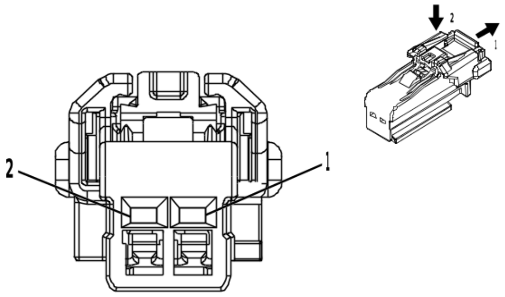
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

P19J Radio Front Speaker - Instrument Panel Left (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BN / BU	118	Left Front Speaker [-] Control 1	I	—
2	0.75	BU	201	Left Front Speaker 1 [+] Control	I	—

P19J Radio Front Speaker - Instrument Panel Left (UQA)



4373379

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 6098-8989
Service Connector: 19369632
Description: 2-Way F 1.2 MCON Series(GY)

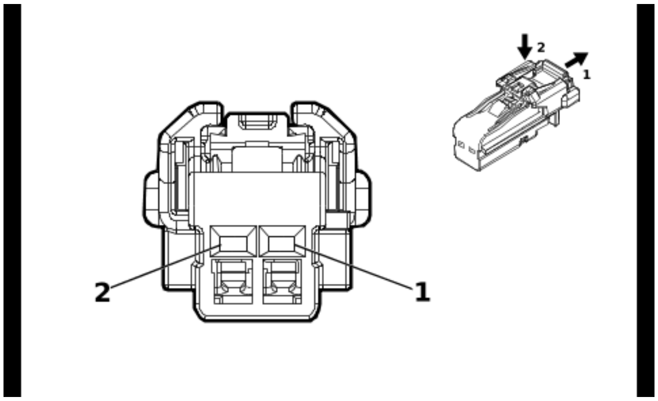
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

P19J Radio Front Speaker - Instrument Panel Left (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / BN	1957	Left Front Midrange Speaker [-] Control	I	—
2	0.5	BU / VT	1857	Left Front Midrange Speaker [+] Control	I	—

P19W Radio Front Speaker - Instrument Panel Right (UQ3)



4115691

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 6098-8988
Service Connector: 87816612
Description: 2-Way F 1.2 MCON Series(BK)

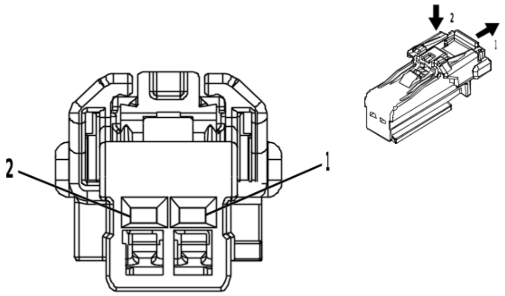
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

P19W Radio Front Speaker - Instrument Panel Right (UQ3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	YE / BK	117	Right Front Speaker [-] Control 1	I	—
2	0.75	YE	200	Right Front Speaker 1 [+] Control	I	—

P19W Radio Front Speaker - Instrument Panel Right (UQA)



4373379

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 6098-8989
Service Connector: 19369632
Description: 2-Way F 1.2 MCON Series(GY)

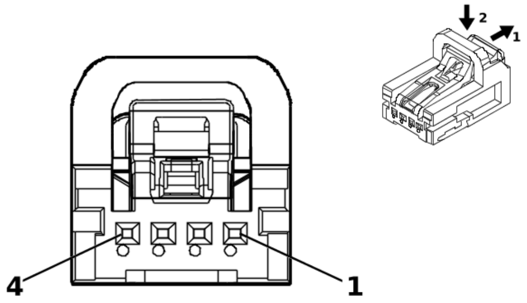
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

P19W Radio Front Speaker - Instrument Panel Right (UQA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN / BK	1953	Right Front Midrange Speaker [-] Control	I	—
2	0.5	WH / YE	1853	Right Front Midrange Speaker [+] Control	I	—

P29 Head-Up Display X1 (UV6)



5200696

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35068218
Service Connector: 84769202
Description: 4-Way F Mini 50 Series(BK)

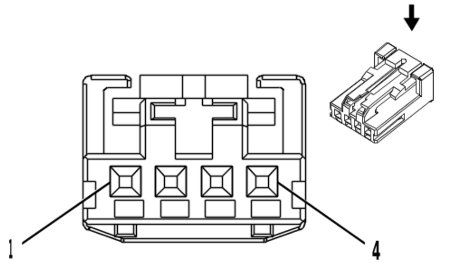
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	EL-35616-58 (BK)	No Tool Required

P29 Head-Up Display X1 (UV6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / BN	1440	Battery Positive Voltage	I	—
2	0.35	BK	2050	Ground	I	—
3 - 4	—	—	—	Not Occupied	—	—

P43 Forward Collision Alert Display (UIT - UV6)



2717162

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 1-936119-1
Service Connector: 19367524
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

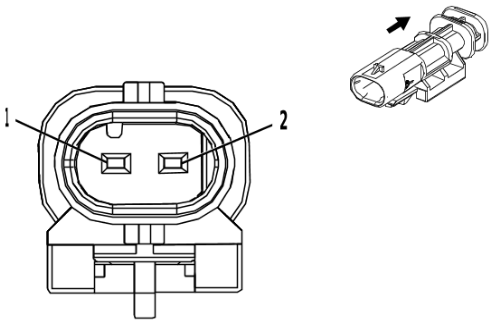
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

P43 Forward Collision Alert Display (UIT - UV6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT / BK	1639	Run/Crank Ignition 1 Voltage	I	—
2	0.35	GY / YE	3885	Forward Collision Alert LED Control	I	—
3	0.35	GY / BK	4787	Day Night LED Control	I	—
4	0.35	BK / WH	2151	Signal Ground	I	—

P45L Front Seat Lane Departure Warning Actuator - Left (HS1)



2474755

Connector Part Information

Harness Type: Seat Wiring Harness
OEM Connector: 13591337
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MCON Series, Sealed(BK)

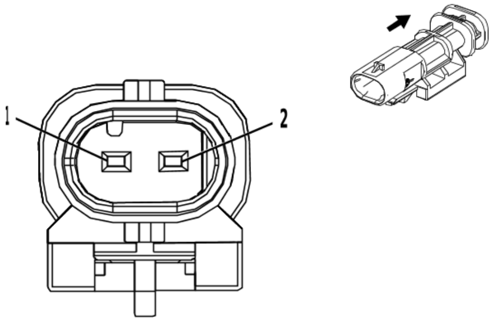
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

P45L Front Seat Lane Departure Warning Actuator - Left (HS1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK	3750	Ground	I	—
2	—	YE / BN	3037	Driver Seat Left Rear Haptic Movement Motor Control	I	—

P45R Front Seat Lane Departure Warning Actuator - Right (HS1)



2474755

Connector Part Information

Harness Type: Seat Wiring Harness
OEM Connector: 13591337
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MCON Series, Sealed(BK)

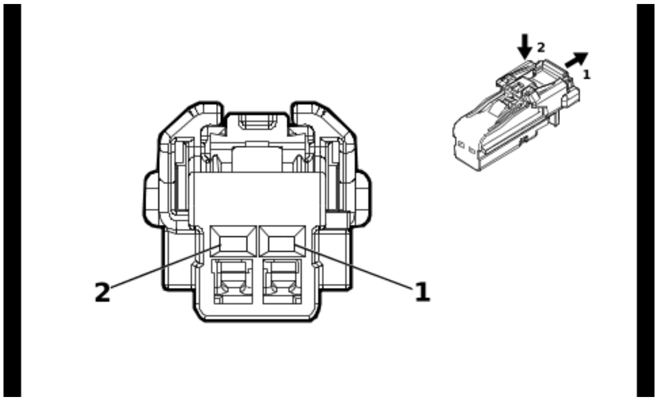
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

P45R Front Seat Lane Departure Warning Actuator - Right (HS1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK	3750	Ground	I	—
2	—	BN	3038	Driver Seat Right Rear Haptic Movement Motor Control	I	—

P50 Regulatory Emergency Call Backup Speaker (UER)



4115691

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 6098-8988
Service Connector: 87816612
Description: 2-Way F 1.2 MCON Series(BK)

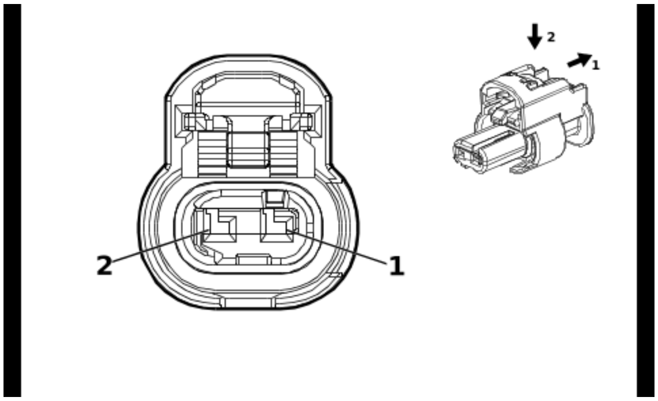
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

P50 Regulatory Emergency Call Backup Speaker (UER)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH / BK	4769	Emergency Call Backup Speaker [-] Control	I	—
2	0.5	GY / GN	4770	Emergency Call Backup Speaker [+] Control	I	—

Q2 Air Conditioning Clutch



4649903

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296694-1
Service Connector: 85519075
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

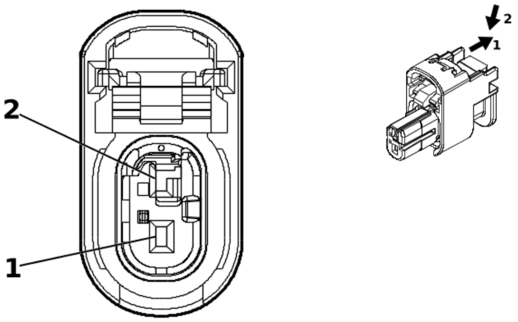
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q2 Air Conditioning Clutch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	450	Ground	I	—
2	0.75	BN / GN	59	Air Conditioning Compressor Clutch Control	I	—

Q6E Camshaft Position Actuator Solenoid Valve - Exhaust



5340268

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296702-2
Service Connector: 19371204
Description: 2-Way F 1.2 MCON-CB Series, Sealed(BK)

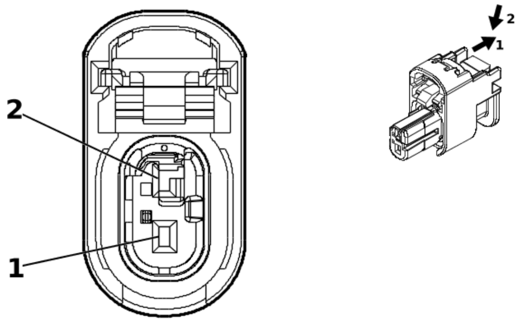
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q6E Camshaft Position Actuator Solenoid Valve - Exhaust

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY / BU	5282	Exhaust Camshaft Position Actuator Solenoid Valve 1	I	—
2	0.5	BK / VT	6754	Camshaft Position Actuator Solenoid Valve X Low Reference	I	—

Q6F Camshaft Position Actuator Solenoid Valve - Intake



5340268

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296702-2
Service Connector: 19371204
Description: 2-Way F 1.2 MCON-CB Series, Sealed(BK)

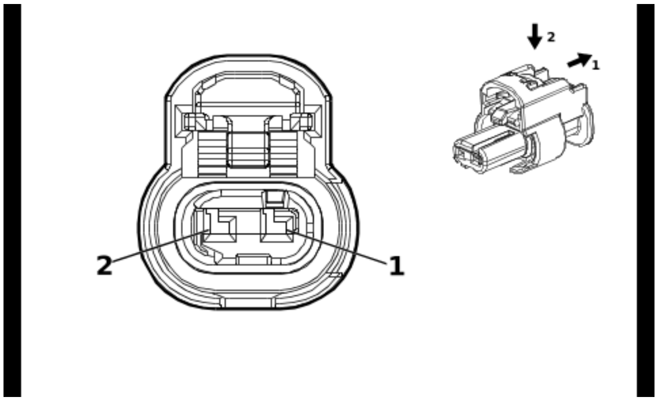
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q6F Camshaft Position Actuator Solenoid Valve - Intake

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BN	5284	Intake Camshaft Position Actuator Solenoid Valve 1	I	—
2	0.5	BK / BN	6753	Camshaft Position Actuator Solenoid Valve W Low Reference	I	—

Q9F Differential Locking Actuator - Front (G93)



4649903

Connector Part Information

Harness Type: Power Steering Wiring Harness
OEM Connector: 1-2296694-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

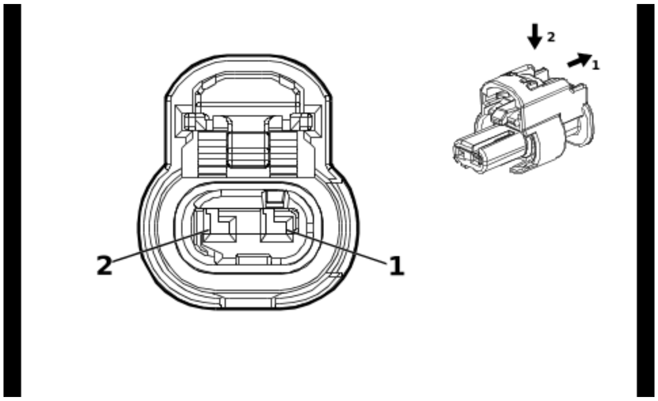
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

Q9F Differential Locking Actuator - Front (G93)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT / WH	7256	Front Differential Lock Actuator Control	I	—
2	0.75	WH / BK	7254	Front Differential Lock Actuator Low Control	I	—

Q9R Differential Locking Actuator - Rear



4649903

Connector Part Information

Harness Type: Chassis Rear Wiring Harness Extension Harness
OEM Connector: 1-2296694-1
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

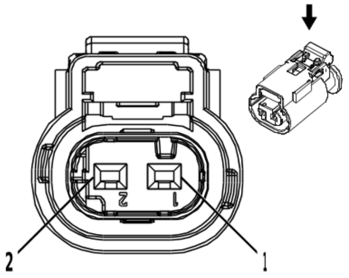
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q9R Differential Locking Actuator - Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT / BN	7258	Rear Differential Lock Actuator Control	I	—
2	0.75	GY / BK	7253	Rear Differential Lock Actuator Low Control	I	—

Q12 Evaporative Emission Canister Purge Solenoid Valve



2717066

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010337
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

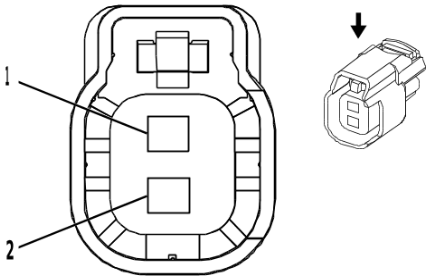
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q12 Evaporative Emission Canister Purge Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
2	0.5	GN / BU	428	EVAP Canister Purge Solenoid Control	I	—

Q13 Evaporative Emission Canister Vent Solenoid Valve



2422378

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34062-0028
Service Connector: 13579002
Description: 2-Way F 1.5 Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required

Q13 Evaporative Emission Canister Vent Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	1310	EVAP Vent Solenoid Valve Control	I	—
2	0.5	RD / WH	4140	Battery Positive Voltage	I	—

Q17A Fuel Injector 1

—

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 34751-1002
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q17A Fuel Injector 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BN	4801	Direct Fuel Injector High Voltage Control Cylinder 1	I	—
2	—	BN / WH	4901	Direct Fuel Injector High Voltage Supply Cylinder 1	I	—

Q17B Fuel Injector 2

—

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 34751-1002
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q17B Fuel Injector 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BU	4802	Direct Fuel Injector High Voltage Control Cylinder 2	I	—
2	—	BU / GY	4902	Direct Fuel Injector High Voltage Supply Cylinder 2	I	—

Q17C Fuel Injector 3

—

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 34751-1002
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q17C Fuel Injector 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GN	4803	Direct Fuel Injector High Voltage Control Cylinder 3	I	—
2	—	GN / GY	4903	Direct Fuel Injector High Voltage Supply Cylinder 3	I	—

Q17D Fuel Injector 4

—

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: 34751-1002
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

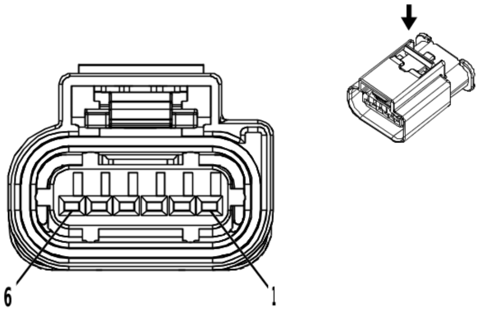
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q17D Fuel Injector 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY / BU	4804	Direct Fuel Injector High Voltage Control Cylinder 4	I	—
2	—	BU / WH	4904	Direct Fuel Injector High Voltage Supply Cylinder 4	I	—

Q38 Throttle Body



3747579

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 2272975-5
Service Connector: 19352911
Description: 6-Way F 1.2 MCON Series, Sealed(BK)

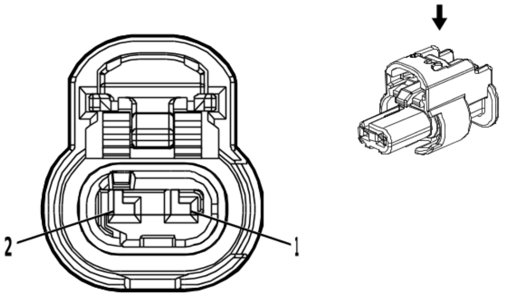
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

Q38 Throttle Body

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Open Control	I	—
2	0.5	BN / WH	582	Throttle Actuator Close Control	I	—
3	0.5	BU / WH	3630	Throttle Position Sensor SENT 1 Signal	I	—
4	0.5	BK / BN	2752	Throttle Position Sensor Low Reference	I	—
5	0.5	BN / RD	2701	Throttle Position Sensor 5V Reference	I	—
6	—	—	—	Not Occupied	—	—

Q40 Turbocharger Bypass Valve Solenoid



4690744

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296694-3
Service Connector: 19366871
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

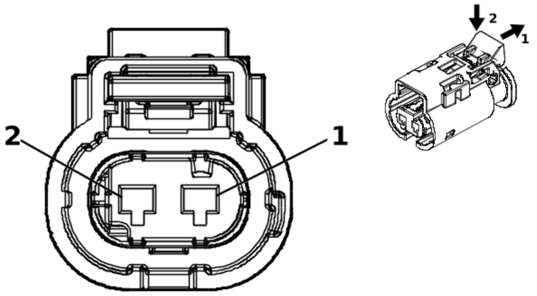
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q40 Turbocharger Bypass Valve Solenoid

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / BU	5293	Powertrain Main Relay Fused Supply Voltage 4	I	—
2	0.5	GN	3060	Turbocharger Bypass Solenoid Valve Control Bank 1	I	—

Q44 Engine Oil Pressure Control Solenoid Valve



5245486

Connector Part Information

Harness Type: Oil Pump Flow Control Solenoid Valve Harness
OEM Connector: 13522570
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MLK Series, Sealed(BK)

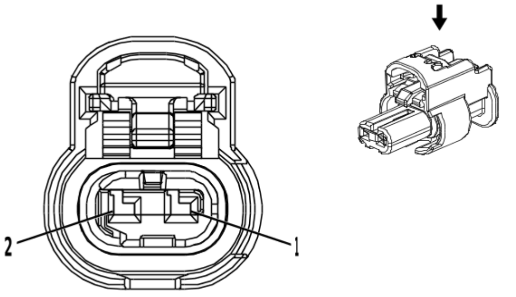
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q44 Engine Oil Pressure Control Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	YE / BN	106	Oil Pump Motor Control	I	—
2	—	BU	179	Engine Oil Pump Control	I	—

Q46 Air Conditioning Compressor Solenoid Valve



4335931

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296694-2
Service Connector: 19366843
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

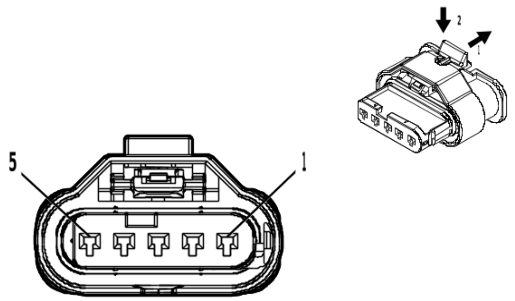
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

Q46 Air Conditioning Compressor Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU / YE	7574	Air Conditioning Compressor Solenoid Valve Control	I	—
2	0.5	BU / BN	7573	Air Conditioning Compressor Solenoid Valve Control	I	—

Q74 Engine Coolant Bypass Valve



4994456

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 2-2236898-5
Service Connector: 19371191
Description: 5-Way F 1.2 MCON-LL Series, Sealed(NA)

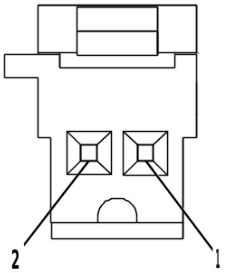
Terminal Part Information

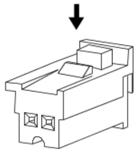
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

Q74 Engine Coolant Bypass Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	2976	Coolant Diverter Valve Actuator Control Open	I	—
2	0.5	BU / BN	2977	Coolant Diverter Valve Actuator Control Close	I	—
3	0.5	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—
4	0.5	BU / GY	2978	Coolant Diverter Valve Position Signal	I	—
5	0.5	BK / GN	580	Engine Control Sensors Low Reference 2	I	—

Q77A Transmission Control Solenoid Valve 1





4051391

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13956948
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(VT)

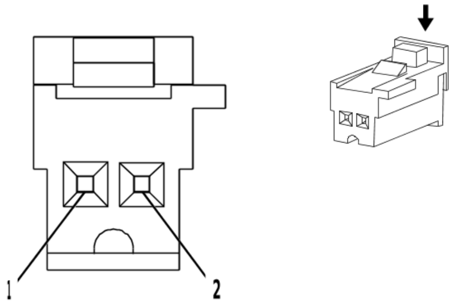
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q77A Transmission Control Solenoid Valve 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BN	6400	Clutch Solenoid Valve A Control	I	—
2	—	GY / BN	6388	Transmission High Side Driver 2 Control	I	—

Q77B Transmission Control Solenoid Valve 2



4008644

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13941672
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(GY)

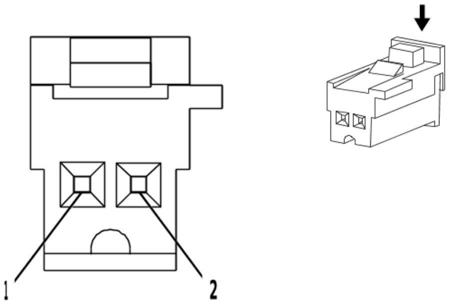
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q77B Transmission Control Solenoid Valve 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BU	6401	Clutch Solenoid Valve B Control	I	—
2	—	GY / BN	6388	Transmission High Side Driver 2 Control	I	—

Q77C Transmission Control Solenoid Valve 3



4008644

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13941672
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(GY)

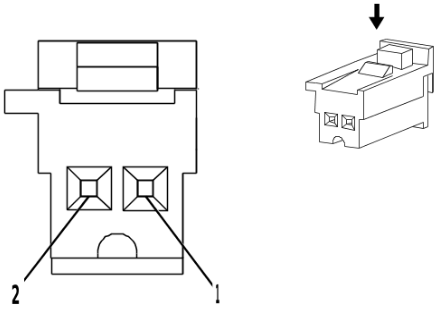
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q77C Transmission Control Solenoid Valve 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY	6402	Clutch Solenoid Valve C Control	I	—
2	—	GY / BN	6388	Transmission High Side Driver 2 Control	I	—

Q77D Transmission Control Solenoid Valve 4



4051391

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13956948
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(VT)

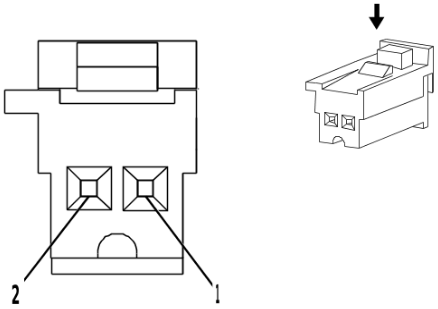
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q77D Transmission Control Solenoid Valve 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	WH	4508	Transmission Clutch G Control	I	—
2	—	GN / GY	6387	Transmission High Side Driver 1 Control	I	—

Q77E Transmission Control Solenoid Valve 5



4051391

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13956948
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(VT)

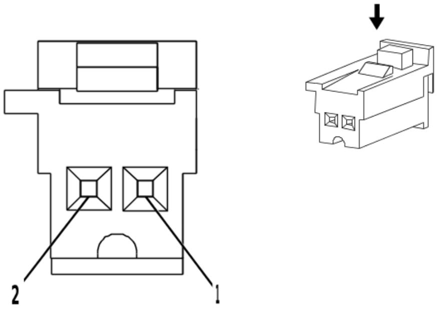
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q77E Transmission Control Solenoid Valve 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	WH / BU	4507	Transmission Clutch H Control	I	—
2	—	GN / GY	6387	Transmission High Side Driver 1 Control	I	—

Q77F Transmission Control Solenoid Valve 6



4051391

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13956948
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(VT)

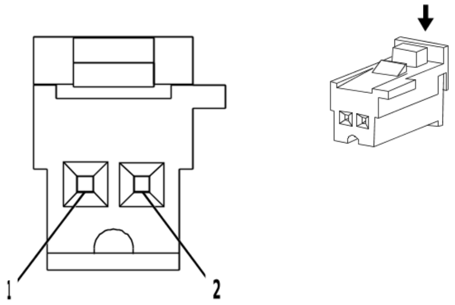
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q77F Transmission Control Solenoid Valve 6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GN / WH	1530	Transmission Line Pressure Control Solenoid Valve Control	I	—
2	—	GY / BN	6388	Transmission High Side Driver 2 Control	I	—

Q77G Transmission Control Solenoid Valve 7



4008644

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13941672
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series(GY)

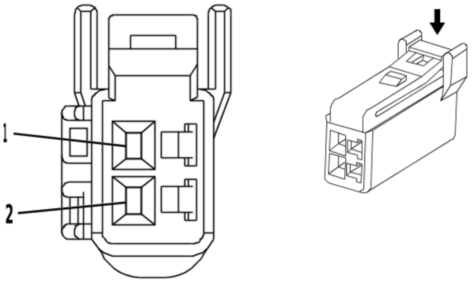
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q77G Transmission Control Solenoid Valve 7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	VT / WH	422	Torque Converter Clutch Solenoid Valve Control	I	—
2	—	GY / BN	6388	Transmission High Side Driver 2 Control	I	—

Q77H Transmission Control Solenoid Valve 8



4051682

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 7287-0122
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 040 III Series(NA)

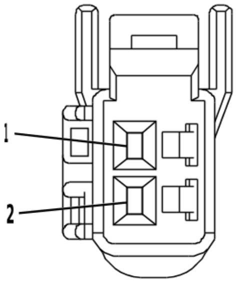
Terminal Part Information

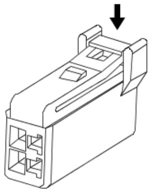
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q77H Transmission Control Solenoid Valve 8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GN / GY	6387	Transmission High Side Driver 1 Control	I	—
2	—	GN / WH	6380	Torque Converter Clutch Enable Solenoid Valve A Control	I	—

Q77J Transmission Control Solenoid Valve 9





4051682

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 7287-0122
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 040 III Series(NA)

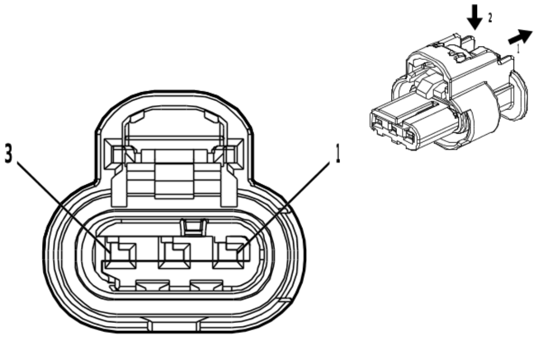
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

Q77J Transmission Control Solenoid Valve 9

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY / BN	6388	Transmission High Side Driver 2 Control	I	—
2	—	YE / BN	6210	Torque Converter Clutch Enable Solenoid Valve B Control	I	—

Q97B Engine Coolant Flow Control Valve - Block



4778903

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 1-2296695-2
Service Connector: 86792095
Description: 3-Way F 1.2 MCON-CB Series, Sealed(BK)

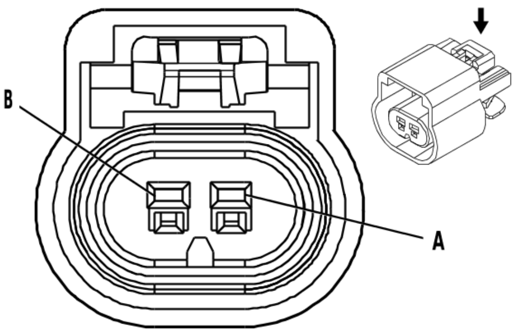
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

Q97B Engine Coolant Flow Control Valve - Block

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GN / BN	2732	Engine Control Module LIN Bus 4	I	—
2	0.5	BK	550	Ground	I	—
3	0.5	VT / BU	5294	Powertrain Main Relay Fused Supply Voltage 5	I	—

R6A Terminating Resistor - High Speed Bus (A45 - U1D - (UFB / UKI / UKW))



523630

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 19153731
Service Connector: 87815146
Description: 2-Way F 150 GT Series, Sealed(BK)

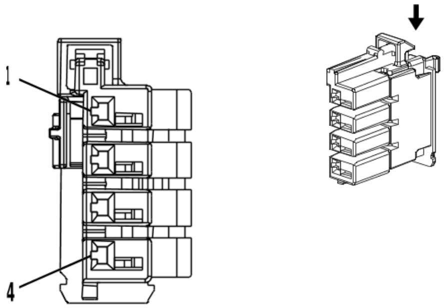
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

R6A Terminating Resistor - High Speed Bus (A45 - U1D - (UFB / UKI / UKW))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BU / VT	4101	AUTOSAR CAN Bus [+] 4 Serial Data	I	—
B	—	WH	4100	AUTOSAR CAN Bus [-] 4 Serial Data	I	—

S2 Automatic Transmission Manual Shift Shaft Position Switch



4364148

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: 13514144
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2 MCON Series(BN)

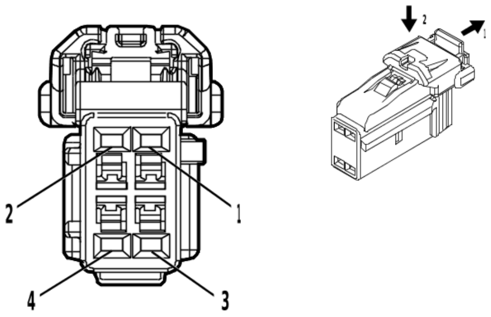
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

S2 Automatic Transmission Manual Shift Shaft Position Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GN / YE	3337	Transmission Internal Mode Switch Mode Control Y	I	—
2	—	WH / RD	480	Engine Control Vehicle Sensors 5 Volt Reference 1	I	—
3	—	BK / GY	626	Engine Control Vehicle Sensors Low Reference 1	I	—
4	—	BU / WH	3338	Transmission Internal Mode Switch Mode Control X	I	—

S3 Automatic Transmission Control



4872683

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 6098-8435
Service Connector: 19369633
Description: 4-Way F 1.2 Series(BK)

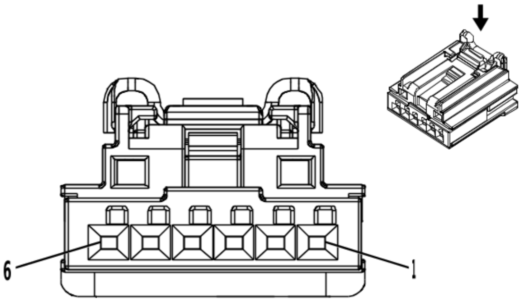
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

S3 Automatic Transmission Control

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	VT / BK	7553	Park Lock Solenoid Actuator Control	I	—
2	0.35	WH / VT	5905	Key Capture/Column Lock Shift Position Signal	I	—
3	0.35	GN / BU	3738	Tap Up/Tap Down Switch Signal 2	I	—
4	0.5	BK	2050	Ground	I	—

S13D Door Lock Switch - Driver



4145138

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 2035363-2
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Generation Y Series(BK)

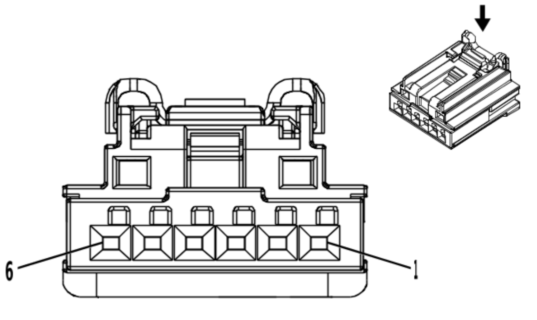
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S13D Door Lock Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / GY	4784	Left Front Door LED Backlight Dimming Control	I	—
2	0.35	VT / YE	4244	Left Front Door Lock Indicator Control	I	—
3	0.35	BN / YE	2771	Left Front Door Lock Switch Lock Signal	I	—
4	0.35	BN / WH	2772	Left Front Door Lock Switch Unlock Signal	I	—
5	0.35	BK	1150	Ground	I	—
6	—	—	—	Not Occupied	—	—

S13P Door Lock Switch - Passenger



Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger
OEM Connector: 2035363-2
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Generation Y Series(BK)

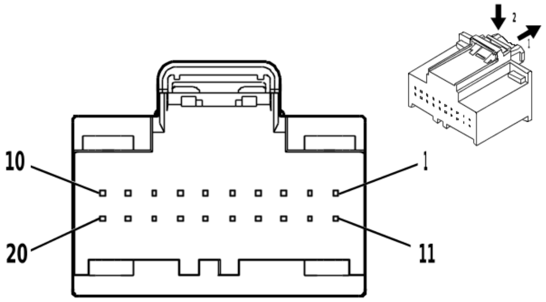
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S13P Door Lock Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GY / VT	4638	LED Backlight Dimming Control Right Front Door	I	—
2	0.35	YE / BU	4245	Right Front Door Lock Indicator Control	I	—
3	0.35	YE / VT	2773	Right Front Door Lock Switch Lock Control	I	—
4	0.35	BN / VT	2774	Right Front Door Lock Switch Unlock Control	I	—
5	0.35	BK	3450	Ground	I	—
6	—	—	—	Not Occupied	—	—

S26 Hazard Warning Switch



5109511

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 31410-0208
Service Connector: 13525993
Description: 20-Way F 0.64 Series(GN)

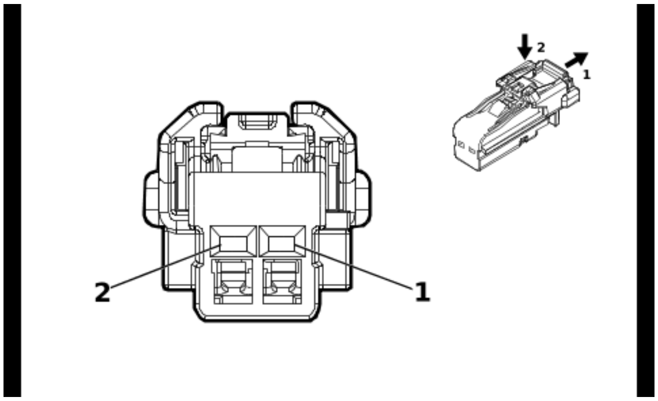
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13584547	J-35616-64B (L-BU)	J-38125-215A

S26 Hazard Warning Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / WH	2151	Signal Ground	I	—
2	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
3	0.35	GN / WH	111	Hazard Warning Switch Signal	I	—
4	0.35	WH	6816	Indicator Dimming Control	I	—
5	0.35	GN	1110	Stop/Start Indicator Control	I	—
6	0.35	BU	1111	Stop/Start Switch Signal	I	—
7	0.35	WH	3152	Lane Departure Warning Indicator Control	I	—
8	0.35	GY / WH	3153	Lane Departure Warning Disable Switch Signal	I	—
9	0.35	BU / YE	7176	All Windows Open Switch Signal	I	—
10	—	—	—	Not Occupied	—	—
11	0.5	YE / GN	7122	Axle Differential Lock Switch Signal	I	—
12	0.5	YE	7115	Rear Axle Differential Lock Indicator Control	I	—
13	0.5	VT / GY	7117	Front Axle Differential Lock Indicator Control	I	—
14	—	—	—	Not Occupied	—	—
15	0.35	BU / WH	3119	Roof Rail Air Bag Disable Switch Signal	I	—
16	0.35	BN / WH	3895	Roof Rail Air Bag Disable Switch Low Reference	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	BU / WH	10716	Upfitter Accessory Relay 1 Coil Control	I	—
19	0.35	GY	4989	Driver Mode 2 Switch Signal	I	—
20	—	—	—	Not Occupied	—	—

S33 Steering Wheel Horn Contact



4115691

Connector Part Information

Harness Type: Steering Wheel Horn Switch Wiring Harness
OEM Connector: 13532422
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series(BK)

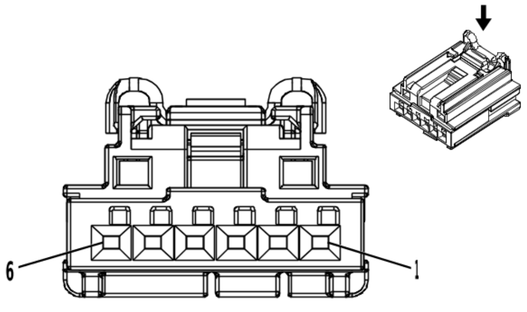
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

S33 Steering Wheel Horn Contact

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK / WH	6051	Steering Wheel Ground	I	—
2	—	GN / WH	3287	Horn Switch Signal	I	—

S36 Dimmer Switch



3960313

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 2035363-4
Service Connector: 19332786
Description: 6-Way F 0.64 Generation Y Series(BK)

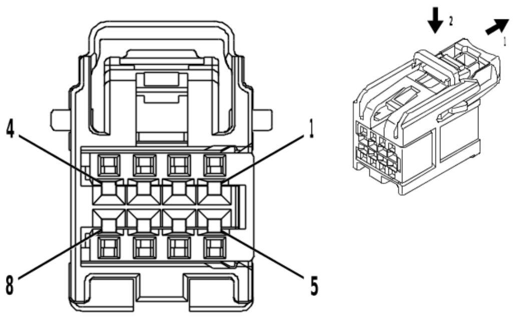
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S36 Dimmer Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK / YE	5005	Instrument Panel Lamp Dimmer Switch Low Reference	I	—
2	0.35	YE / GY	44	Instrument Panel Lamp Dimmer Switch Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	BK	2050	Ground	I	—
5	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
6	—	—	—	Not Occupied	—	—

S38 On/Off Vehicle Switch



4232228

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 15526973
Service Connector: 19353873
Description: 8-Way F 0.64 OCS Series(GY)

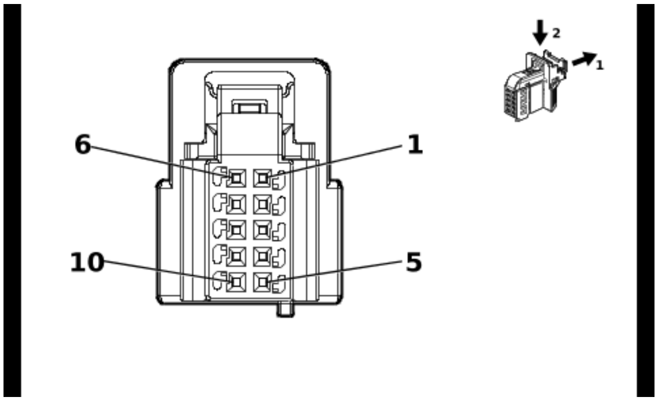
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S38 On/Off Vehicle Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU / BK	5719	Ignition Mode Switch Start LED Signal	I	—
2	0.35	BN / BK	5720	Ignition Mode Switch Accessory LED Signal	I	—
3	0.75	BK / WH	2151	Signal Ground	I	—
4	0.35	BU / GN	5723	Ignition Mode Switch Mode Voltage	I	—
5	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	BK / GY	3559	Passive Start Switch 2 Low Reference	I	—
8	0.35	GN / BK	3558	Passive Start Switch Signal 2	I	—

S47D Front Seat Adjuster Memory Switch - Driver (A45)



Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 2310000-1
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 MQS Series(BK)

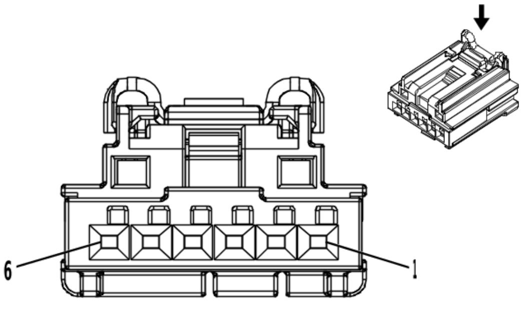
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S47D Front Seat Adjuster Memory Switch - Driver (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / GY	4784	Left Front Door LED Backlight Dimming Control	I	—
2	0.35	VT / YE	4244	Left Front Door Lock Indicator Control	I	—
3	0.35	BN / YE	2771	Left Front Door Lock Switch Lock Signal	I	—
4	0.35	BN / WH	2772	Left Front Door Lock Switch Unlock Signal	I	—
5	0.35	BK / WH	3051	Signal Ground	I	—
6	0.35	BU / GN	614	Seat Memory Switch Set Signal	I	—
7	0.35	WH	615	Seat Memory Switch Signal 1	I	—
8 - 10	—	—	—	Not Occupied	—	—

S51 Communication Center Call Switch



3960313

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 2035363-4
Service Connector: 19332786
Description: 6-Way F 0.64 Generation Y Series(BK)

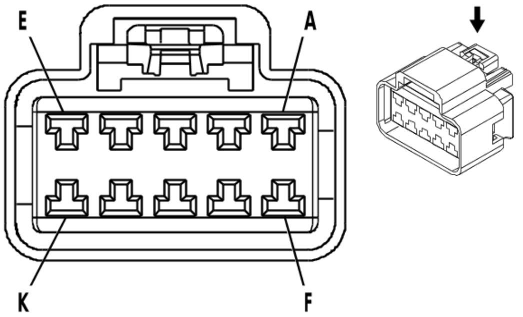
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S51 Communication Center Call Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / BK	2515	Telematics Switch Supply Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GN / WH	2514	Telematics Switch Signal	I	—
4	0.35	YE / VT	2516	Telematics Switch Green LED Indicator Control	I	—
5	0.35	BN / WH	2517	Telematics Switch Red LED Indicator Control	I	—
6	0.35	BK / WH	451	Signal Ground	I	—

S64D Front Seat Adjuster Switch - Driver (A2X)



623046

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 35058909
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 280 GT Series(BK)

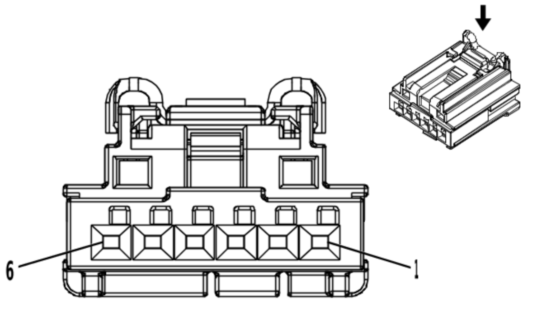
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S64D Front Seat Adjuster Switch - Driver (A2X)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2.5	RD / GY	3540	Battery Positive Voltage	I	—
B	1.5	BU / YE	277	Driver Seat Recline Motor Rearward Control	I	—
C	1.5	YE / BU	285	Driver Seat Horizontal Motor Forward Control	I	—
D	1.5	GY / GN	284	Driver Seat Horizontal Motor Rearward Control	I	—
E	1.5	GY / BU	283	Driver Seat Rear Vertical Motor Down Control	I	—
F	1.5	GN / BN	286	Driver Seat Front Vertical Motor Up Control	I	—
G	1.5	YE	282	Driver Seat Rear Vertical Motor Up Control	I	—
H	1.5	GN / YE	276	Driver Seat Recline Motor Forward Control	I	—
J	2.5	BK	3750	Ground	I	—
K	1.5	BU / VT	287	Driver Seat Front Vertical Motor Down Control	I	—

S64D Front Seat Adjuster Switch - Driver (A45)



3960313

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 2035363-4
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Generation Y Series(BK)

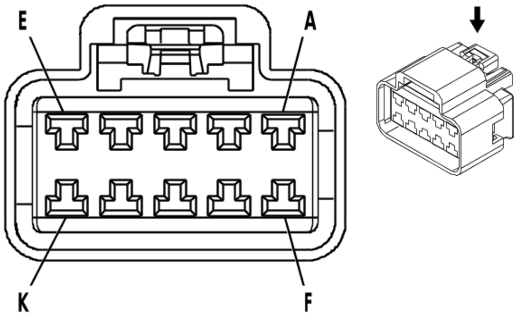
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S64D Front Seat Adjuster Switch - Driver (A45)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD / VT	3340	Battery Positive Voltage	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	GN / GY	3758	Driver Seat Adjuster Memory Module LIN Bus 2	I	—
4	0.5	BK	3750	Ground	I	—
5 - 6	—	—	—	Not Occupied	—	—

S64P Front Seat Adjuster Switch - Passenger (AT9)



623046

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 35058909
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 280 GT Series(BK)

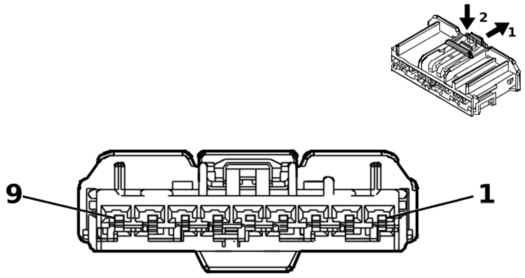
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S64P Front Seat Adjuster Switch - Passenger (AT9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	—	Not Occupied	—	—
B	1.5	YE / BU	290	Passenger Seat Horizontal Motor Rearward Control	I	—
C	1.5	YE / WH	296	Passenger Seat Horizontal Motor Forward Control	I	—
D	1.5	BU / BN	77	Passenger Seat Recline Motor Rearward Control	I	—
E	2.5	BK	4250	Ground	I	—
F	1.5	BU / WH	289	Passenger Seat Rear Vertical Motor Down Control	I	—
G	2.5	RD / YE	4340	Battery Positive Voltage	I	—
H	1.5	GN	76	Passenger Seat Recline Motor Forward Control	I	—
J	—	—	—	Not Occupied	—	—
K	1.5	GN / WH	288	Passenger Seat Rear Vertical Motor Up Control	I	—

S65D Front Seat Lumbar Switch - Driver (AL9)



5204289

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 7289-6875-40
Service Connector: Service by Harness - See Part Catalog
Description: 9-Way F 2.8 YESC Series(GY)

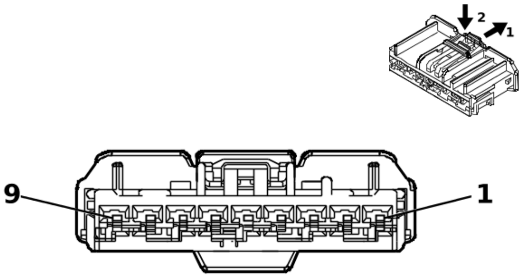
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S65D Front Seat Lumbar Switch - Driver (AL9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	3750	Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.75	RD / WH	3440	Battery Positive Voltage	I	—
4	—	—	—	Not Occupied	—	—
5	0.75	BU	611	Driver Seat Lumbar Support Motor Forward Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	VT	610	Driver Seat Lumbar Support Motor Backward Control	I	—
8 - 9	—	—	—	Not Occupied	—	—

S65P Front Seat Lumbar Switch - Passenger (AT9)



5204289

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 7289-6875-40
Service Connector: Service by Harness - See Part Catalog
Description: 9-Way F 2.8 YESC Series(GY)

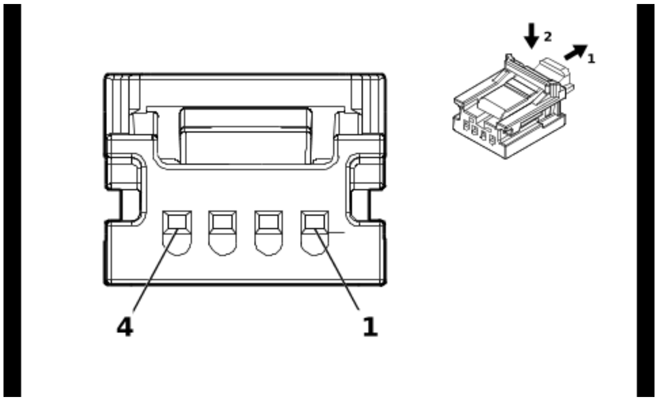
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S65P Front Seat Lumbar Switch - Passenger (AT9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	4250	Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.75	RD / BN	4240	Battery Positive Voltage	I	—
4	—	—	—	Not Occupied	—	—
5	0.75	BU	211	Passenger Seat Lumbar Support Motor Forward Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	VT	210	Passenger Seat Lumbar Support Motor Backward Control	I	—
8 - 9	—	—	—	Not Occupied	—	—

S70E Radio Favorites Switch - Steering Wheel



5493278

Connector Part Information

Harness Type: Steering Wheel Horn Switch Wiring Harness
OEM Connector: 13507113
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F Mini 50 Series(BK)

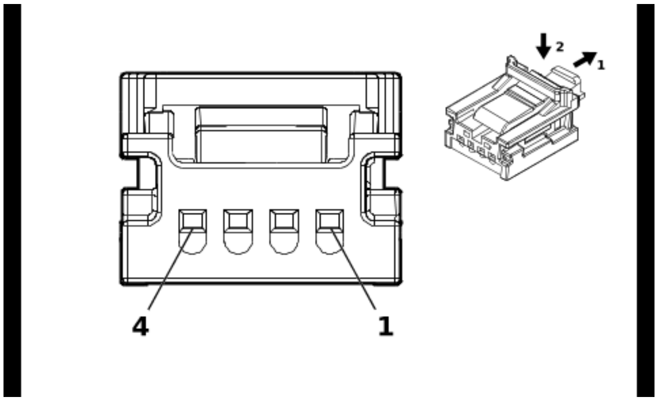
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

S70E Radio Favorites Switch - Steering Wheel

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK / WH	6051	Steering Wheel Ground	I	—
2	—	WH / YE	4313	Radio Favorite Forward Switch Signal	I	—
3	—	YE / BU	4312	Radio Favorite Back Switch Signal	I	—
4	—	—	—	Not Occupied	—	—

S70F Radio Volume Switch - Steering Wheel



5493584

Connector Part Information

Harness Type: Steering Wheel Horn Switch Wiring Harnes
OEM Connector: 13507115
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F Mini 50 Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

S70F Radio Volume Switch - Steering Wheel

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK / WH	6051	Steering Wheel Ground	I	—
2	—	GY / BN	4314	Radio Volume Down Switch Signal	I	—
3	—	BU	4315	Radio Volume Up Switch Signal	I	—
4	—	—	—	Not Occupied	—	—

S70L Cruise Control Switch

—

Connector Part Information

Harness Type: Steering Wheel Horn Switch Wiring Harness
OEM Connector: 2282268-1
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

S70L Cruise Control Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	RD / GN	5140	Battery Positive Voltage	I	—
3	—	GY / GN	5737	Distance Sensing Cruise Control Gap Up/Down Switch Signal	I	—
4	—	GY / GN	5737	Distance Sensing Cruise Control Gap Up/Down Switch Signal	I	—
5	—	YE / BK	3893	Steering Wheel LED Backlight Dimming Control	I	—
6	—	BK / WH	6051	Steering Wheel Ground	I	—
7	—	BN / GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
8	—	BK / VT	1449	Steering Wheel Resistor Ladder Low Reference	I	—
10	—	BK / WH	6051	Steering Wheel Ground	I	—

S70R Radio Control Switch - Steering Wheel

—

Connector Part Information

Harness Type: Steering Wheel Horn Switch Wiring Harness
OEM Connector: 2282268-2
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way

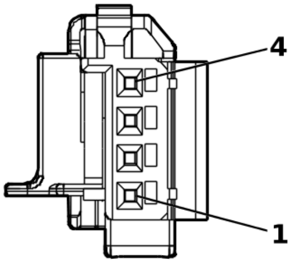
Terminal Part Information

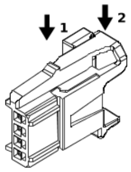
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

S70R Radio Control Switch - Steering Wheel

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	RD / GN	5140	Battery Positive Voltage	I	—
2	—	GY / BN	4314	Radio Volume Down Switch Signal	I	—
3	—	WH / YE	4313	Radio Favorite Forward Switch Signal	I	—
4	—	GN / BK	10652	Radio LIN Bus 1	I	—
5	—	YE / BK	3893	Steering Wheel LED Backlight Dimming Control	I	—
6	—	YE / GY	5883	Steering Wheel Heating Switch Signal	I	—
7	—	BN / WH	5884	Steering Wheel Heating Switch LED Control	I	—
8	—	BK / WH	6051	Steering Wheel Ground	I	—
9	—	BU	4315	Radio Volume Up Switch Signal	I	—
10	—	YE / BU	4312	Radio Favorite Back Switch Signal	I	—

S72 Sunroof Switch (CAC)





5191926

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 2294399-1
Service Connector: 84724190
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

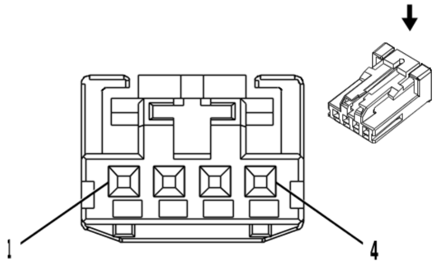
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S72 Sunroof Switch (CAC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	4250	Ground	I	—
2	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	BU / VT	5027	Sunroof Switch Serial Data 1 Signal	I	—

S76 Trailer Brake Control Switch (JL1 & Z82)



2717162

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 1-936119-1
Service Connector: 19367524
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

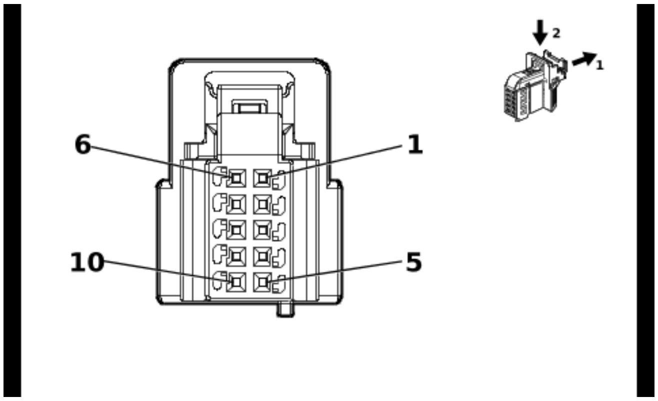
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S76 Trailer Brake Control Switch (JL1 & Z82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / VT	4040	Battery Positive Voltage	I	—
2	0.35	GN / BU	2733	Brake System Control Module LIN Bus 2	I	—
3	0.35	BK	2050	Ground	I	—
4	—	—	—	Not Occupied	—	—

S78 Turn Signal Switch



5838155

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 2310000-1
Service Connector: 13518417
Description: 10-Way F 0.64 MQS Series(BK)

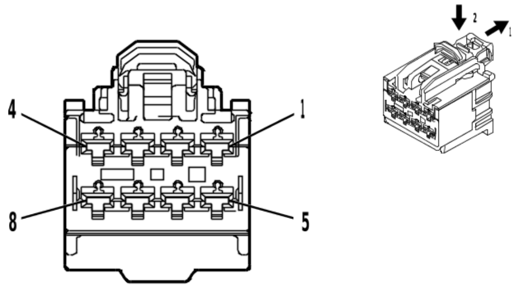
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300632	J-35616-64B (L-BU)	J-38125-215A

S78 Turn Signal Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / GN	2915	Left Turn Signal Switch Signal	I	—
2	0.35	VT / BU	2916	Right Turn Signal Switch Signal	I	—
3	0.35	BK	2050	Ground	I	—
4	—	—	—	Not Occupied	—	—
5	0.35	WH / BK	94	Windshield Washer Switch Signal	I	—
6	0.35	YE / BN	307	Headlamp Switch Flash Signal	I	—
7	0.35	WH	524	High Beam Select Switch High Beam Signal	I	—
8	0.35	BK / GY	6009	Windshield Wiper Switch Low Reference	I	—
9	0.35	GY	1715	Windshield Wiper Switch High Signal	I	—
10	0.35	YE / BU	1714	Windshield Wiper Switch Low Signal	I	—

S79D Front Side Door Window Control Switch - Driver X1



4875738

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Driver
OEM Connector: 33223792
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 OCS Series(BK)

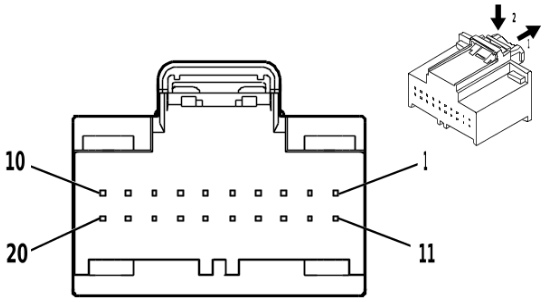
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S79D Front Side Door Window Control Switch - Driver X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1150	Ground	I	—
2	0.35	WH / BN	2764	Window Switch Left Front Down Signal	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	WH	606	Left Outside Rearview Mirror Heater Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	GY / GN	2763	Window Switch Left Front Up Signal	I	—
8	0.5	RD / VT	1940	Battery Positive Voltage	I	—

S79D Front Side Door Window Control Switch - Driver X2



5109537

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Driver
OEM Connector: 31410-0206
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 0.64 Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

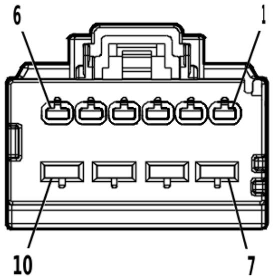
S79D Front Side Door Window Control Switch - Driver X2

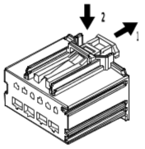
Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / YE	2771	Left Front Door Lock Switch Lock Signal	I	—
2	0.35	BN / WH	2772	Left Front Door Lock Switch Unlock Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	VT / YE	4244	Left Front Door Lock Indicator Control	I	—
5	0.35	BN / GY	4784	Left Front Door LED Backlight Dimming Control	I	—
6	0.35	GY / YE	1760	Left Side Object Detection LED Control	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	YE / BN	2789	Left Front Mirror Motor Common Control	I	—
9	0.35	GN	2766	Power Window Switch Left Front Express Signal	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	WH / VT	4258	Left Front Door Lock Status Signal	I	—
12	0.35	VT / BU	2788	Left Front Mirror Motor Up [+] Down [-] Control	I	—
13	0.35	BN / BK	2790	Left Front Mirror Motor Right [+] Left [-] Control	I	—
14	—	—	—	Not Occupied	—	—
15	0.35	GN / YE	6134	Body Control Module LIN Bus 3	I	—
16	0.35	WH / YE	2792	Left Front Mirror Position Sensor Left [-] Right [+] Signal	I	—
17	0.35	GY / BN	2787	Left Front Mirror Position Sensor Up [+] Down [-] Signal	I	—
18	0.35	GY	745	Left Front Door Ajar Switch Signal	I	—
19	0.35	VT / RD	2791	Left Front Mirror Position Sensor High Reference	I	—

S79D Front Side Door Window Control Switch - Driver X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
20	0.35	BK / BN	673	Left Outside Rearview Mirror Position Sensor Low Reference	I	—

S79LR Rear Side Door Window Switch - Left





5035058

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Left
OEM Connector: 31372-1600
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5, 2.8 MX Series(BK)

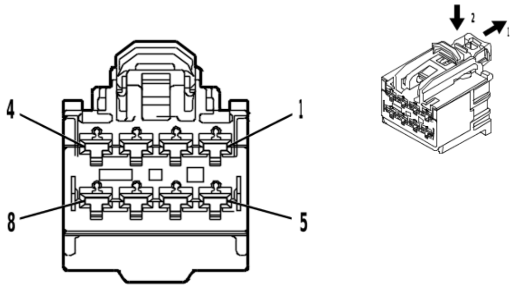
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	Not required	J-35616-4A (PU)	No Tool Required

S79LR Rear Side Door Window Switch - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / GY	6135	Body Control Module LIN Bus 4	I	—
2	0.35	GY	747	Left Rear Door Ajar Switch Signal	I	—
3	0.75	BK	1150	Ground	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	2.5	BK	1150	Ground	III	—
8	2.5	RD / BU	1240	Battery Positive Voltage	III	—
9	2	BU / VT	668	Left Rear Window Motor Up Control	III	—
10	2	YE / BU	669	Left Rear Window Motor Down Control	III	—

S79P Front Side Door Window Switch - Passenger X1



4875738

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Passenger
OEM Connector: 33223792
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 2.8 OCS Series(BK)

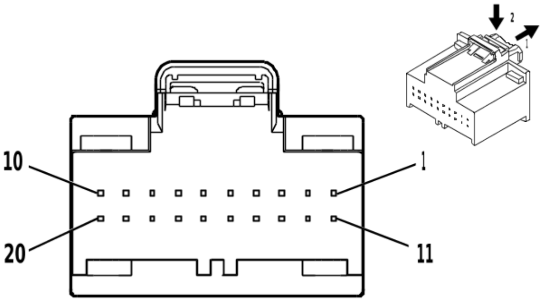
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

S79P Front Side Door Window Switch - Passenger X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	BK	1250	Ground	I	—
2	2	YE / BU	667	Right Front Window Motor Down Control	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	BN / VT	607	Right Outside Rearview Mirror Heater Control	I	—
6	—	—	—	Not Occupied	—	—
7	2	GN / GY	666	Right Front Window Motor Up Control	I	—
8	2.5	RD / GY	3540	Battery Positive Voltage	I	—

S79P Front Side Door Window Switch - Passenger X2



5109537

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Passenger
OEM Connector: 31410-0206
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 0.64 Series(GY)

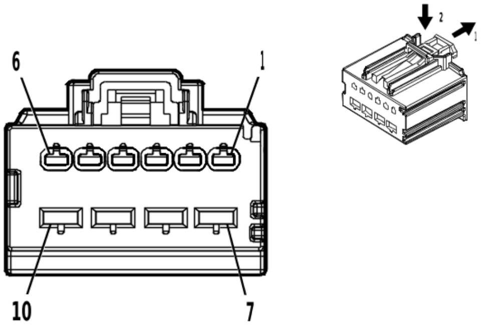
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S79P Front Side Door Window Switch - Passenger X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE / RD	2799	Right Front Mirror Position Sensor High Reference	I	—
2	0.35	GN / BK	2798	Right Front Mirror Motor Right [+] Left [-] Control	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	YE / BU	4245	Right Front Door Lock Indicator Control	I	—
5	0.35	GY / VT	4638	LED Backlight Dimming Control Right Front Door	I	—
6	0.35	GY	1761	Right Side Object Detection LED Control	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	GY	746	Right Front Door Ajar Switch Signal	I	—
9	0.35	GN / YE	6134	Body Control Module LIN Bus 3	I	—
10	0.35	VT / WH	2800	Right Front Mirror Position Sensor Left [-] Right [+] Signal	I	—
11	0.35	BU / YE	2795	Right Front Mirror Position Sensor Up [+] Down [-] Signal	I	—
12	0.35	YE / VT	2773	Right Front Door Lock Switch Lock Control	I	—
13	0.35	BN / VT	2774	Right Front Door Lock Switch Unlock Control	I	—
14 - 15	—	—	—	Not Occupied	—	—
16	0.35	VT	4259	Right Front Door Lock Status Signal	I	—
17	0.35	YE / VT	2796	Right Front Mirror Motor Up [+] Down [-] Control	I	—
18	—	—	—	Not Occupied	—	—
19	0.35	WH	2797	Right Front Mirror Motor Common Control	I	—
20	0.35	BK / GN	675	Right Outside Rearview Mirror Position Sensor Low Reference	I	—

S79RR Rear Side Door Window Switch - Right



5035058

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Right
OEM Connector: 31372-1600
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 1.5, 2.8 MX Series(BK)

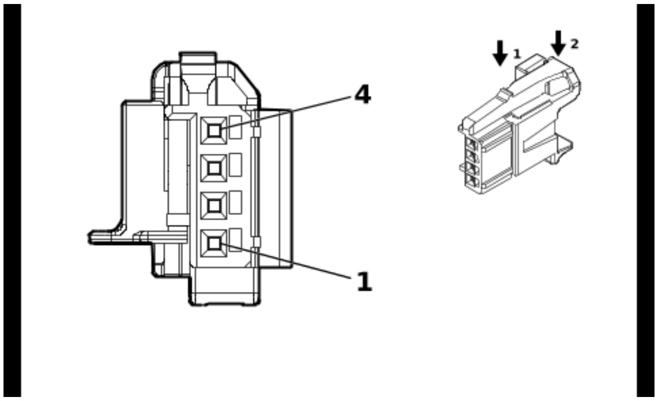
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

S79RR Rear Side Door Window Switch - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	GN / GY	6135	Body Control Module LIN Bus 4	I	—
2	0.35	GY	748	Right Rear Door Ajar Switch Signal	I	—
3 - 6	—	—	—	Not Occupied	—	—
7	2.5	BK	1250	Ground	II	—
8	2.5	RD / GY	3540	Battery Positive Voltage	II	—
9	2	BU / GY	670	Right Rear Window Motor Up Control	II	—
10	2	GN / BK	671	Right Rear Window Motor Down Control	II	—

S88 Sunroof Tilt Position Switch (CAC)



5417126

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 2294399-2
Service Connector: 84880893
Description: 4-Way F 0.64 MQS Series(WH)

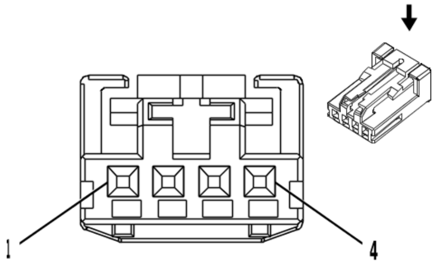
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S88 Sunroof Tilt Position Switch (CAC)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BK	4250	Ground	I	—
2	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	WH / GN	3031	Sunroof Vent Switch Signal	I	—

S91 Parking Brake Control Switch



2717162

Connector Part Information

Harness Type: Front Floor Console Wiring Harness Extension Harness
OEM Connector: 1-936119-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 Micro-Quadlock Series(BK)

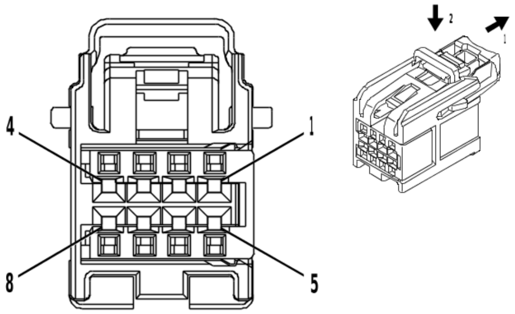
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S91 Parking Brake Control Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / GN	5140	Battery Positive Voltage	I	—
2	0.35	GN / YE	2731	Brake System Control Module LIN Bus 1	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	BK / WH	2151	Signal Ground	I	—

S126 Ride Control Switch (NP0 / NQH)



4232228

Connector Part Information

Harness Type: Front Floor Console Wiring Harness Extension Harness
OEM Connector: 15526973
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 0.64 OCS Series(GY)

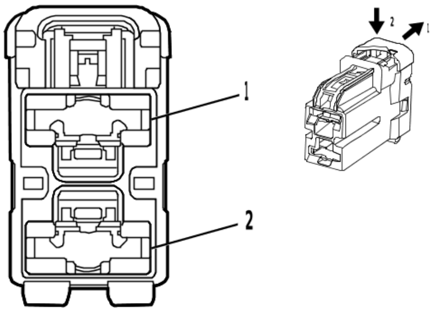
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

S126 Ride Control Switch (NP0 / NQH)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH / BN	2203	Enhanced Driver Mode 2 Switch Signal	I	—
2	—	—	—	Not Occupied	—	—
3	0.35	BK / GY	2204	Enhanced Driver Mode 1 Switch Low Reference	I	—
4	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
5	0.35	BK	2050	Ground	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.35	VT / GN	39	Run/Crank Ignition 1 Voltage	I	—

T1 DC/AC Converter Control Module X1



2453116

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 7283-0724-30
Service Connector: 85011842
Description: 2-Way F 9.5 Series(BK)

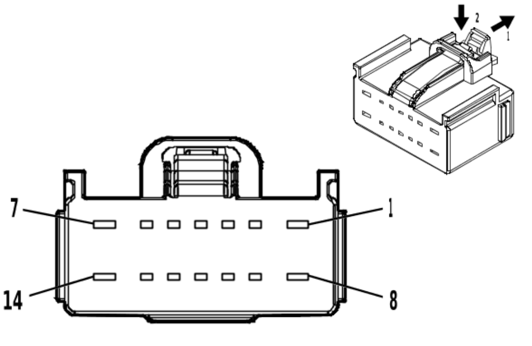
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-22 (RD)	No Tool Required

T1 DC/AC Converter Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	BN / BK	4629	DC/AC Inverter Control	I	—
2	5	BK	550	Ground	I	—

T1 DC/AC Converter Control Module X2 (KI6)



4934172

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 7289-7630-30
Service Connector: 13513604
Description: 14-Way F 1.5, 2.8 YESC Series(BK)

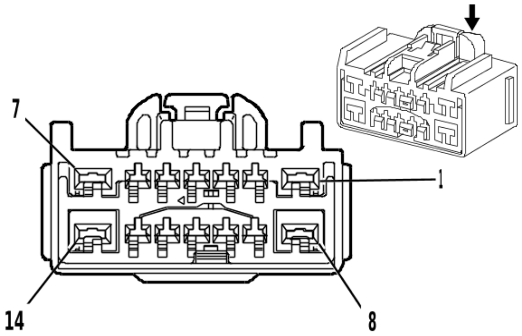
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575850	J-35616-2A (GY)	J-38125-557
II	84962855	J-35616-4A (PU)	J-38125-11A

T1 DC/AC Converter Control Module X2 (KI6)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	10117	AC Outlet Phase A Control	II	—
2	0.5	VT / RD	4049	AC Power Outlet Sensor High Reference	I	—
3	0.5	VT / GY	539	Run/Crank Ignition 1 Voltage	I	—
4	0.5	WH / GN	4628	DC/AC Inverter Relay Control	I	—
5	0.5	BU / BN	6807	DC/AC Inverter Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	BK / WH	10120	AC Outlet 2 Phase A Control	II	—
8	0.75	RD	10118	AC Outlet Phase B Control	II	—
9	0.75	Bare	10116	AC Outlet Low Reference	I	—
10	0.35	GN / BU	6133	Body Control Module LIN Bus 2	I	—
11	—	—	—	Not Occupied	—	—
12	0.5	GN / BN	2266	DC/AC Inverter Control 2	I	—
13	0.75	Bare	10119	AC Outlet 2 Low Reference	I	—
14	0.75	RD / WH	10121	AC Outlet 2 Phase B Control	II	—

T1 DC/AC Converter Control Module X2 (KI7)



1540775

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 7289-7631-90
Service Connector: 13513603
Description: 14-Way F 1.5, 2.8 YESC Series(BU)

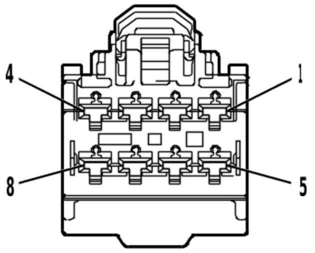
Terminal Part Information

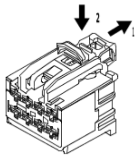
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575850	J-35616-2A (GY)	J-38125-557
II	84962855	J-35616-4A (PU)	J-38125-11A

T1 DC/AC Converter Control Module X2 (KI7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	10117	AC Outlet Phase A Control	II	—
2	0.5	VT / RD	4049	AC Power Outlet Sensor High Reference	I	—
3	0.5	VT / GY	539	Run/Crank Ignition 1 Voltage	I	—
4	0.5	WH / GN	4628	DC/AC Inverter Relay Control	I	—
5	0.5	BU / BN	6807	DC/AC Inverter Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.75	BK / WH	10120	AC Outlet 2 Phase A Control	II	—
8	0.75	RD	10118	AC Outlet Phase B Control	II	—
9	0.75	Bare	10116	AC Outlet Low Reference	I	—
10	0.35	GN / BU	6133	Body Control Module LIN Bus 2	I	—
11	—	—	—	Not Occupied	—	—
12	0.5	GN / BN	2266	DC/AC Inverter Control 2	I	—
13	0.75	Bare	10119	AC Outlet 2 Low Reference	I	—
14	0.75	RD / WH	10121	AC Outlet 2 Phase B Control	II	—

T3 Audio Amplifier X1





4875738

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 33223792
Service Connector: 19369366
Description: 8-Way F 2.8 OCS Series(BK)

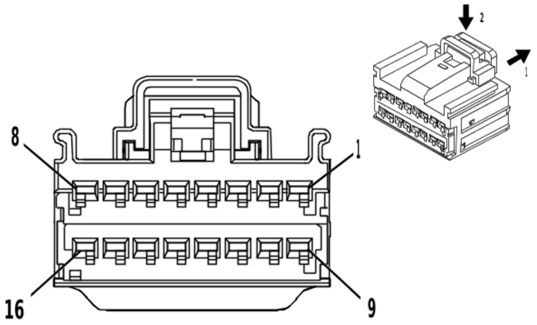
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-4A (PU)	No Tool Required

T3 Audio Amplifier X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	YE	200	Right Front Speaker 1 [+] Control	I	—
2	—	—	—	Not Occupied	—	—
3	2.5	BU	201	Left Front Speaker 1 [+] Control	I	—
4	3	RD / YE	3740	Battery Positive Voltage	I	—
5	2.5	YE / BK	117	Right Front Speaker [-] Control 1	I	—
6	—	—	—	Not Occupied	—	—
7	2.5	BN / BU	118	Left Front Speaker [-] Control 1	I	—
8	3	BK / WH	651	Signal Ground	I	—

T3 Audio Amplifier X2



4332214

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 15512506
Service Connector: 13591061
Description: 16-Way F 1.5 OCS Series(BK)

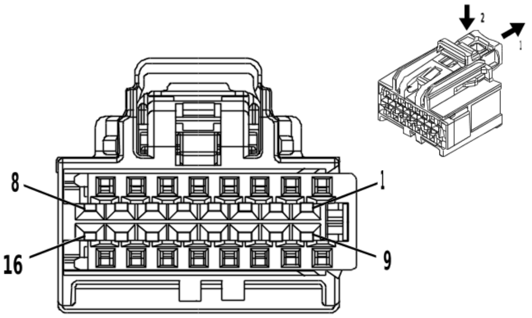
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	84757974	J-35616-2A (GY)	J-38125-215A

T3 Audio Amplifier X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	WH / YE	1853	Right Front Midrange Speaker [+] Control	I	—
3	0.5	BU / VT	1857	Left Front Midrange Speaker [+] Control	I	—
4	0.5	WH	46	Right Rear Speaker [+] Control	I	—
5	0.5	GN	199	Left Rear Speaker [+] Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	YE / WH	1860	Front Center Speaker [+] Control	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	BN / BK	1953	Right Front Midrange Speaker [-] Control	I	—
11	0.5	BU / BN	1957	Left Front Midrange Speaker [-] Control	I	—
12	0.5	BU / BK	115	Right Rear Speaker [-] Control	I	—
13	0.5	GN / BK	116	Left Rear Speaker [-] Control	I	—
14	—	—	—	Not Occupied	—	—
15	0.5	BU / YE	1960	Front Center Speaker [-] Control	I	—
16	—	—	—	Not Occupied	—	—

T3 Audio Amplifier X4



4256181

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35016345
Service Connector: 13519740
Description: 16-Way F 0.64 OCS Series(BN)

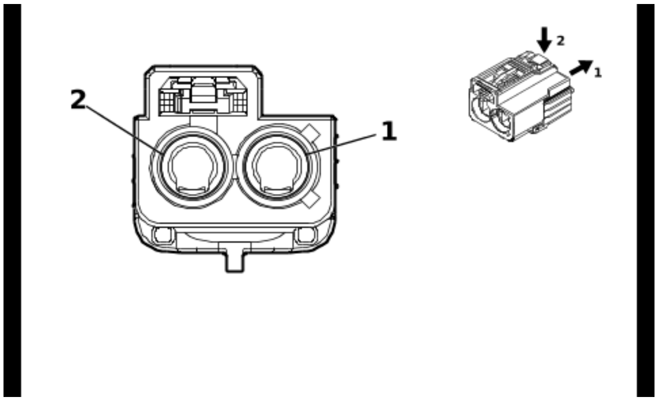
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	84619127	J-35616-64B (L-BU)	J-38125-215A
II	Service by Cable	No Tool Required	No Tool Required

T3 Audio Amplifier X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 7	—	—	—	Not Occupied	—	—
8	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	WH	8580	Automotive Audio Bus A2B Serial Data 1 [+]	II	—
11	0.35	GN	8579	Automotive Audio Bus A2B Serial Data 1 [-]	II	—
12 - 15	—	—	—	Not Occupied	—	—
16	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	—

T4P High Frequency Antenna X1 (- MAM)



5661671

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13516425
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Coax Type(VT)

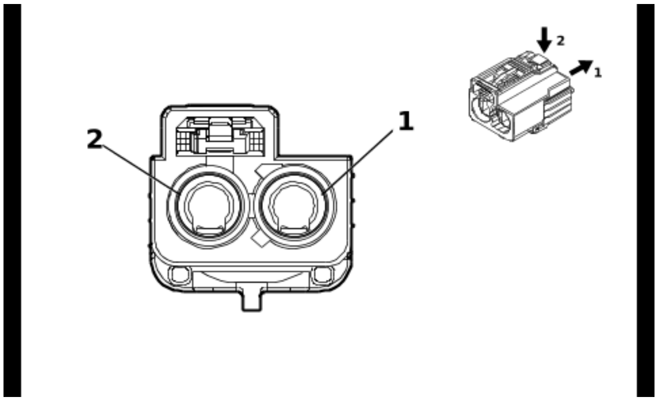
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

T4P High Frequency Antenna X1 (- MAM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(GPS/Cell) Coaxial Antenna Cell/GPS combined Signal	I	—

T4P High Frequency Antenna X1 (MAM)



5979943

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13516427
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Coax Type(BN)

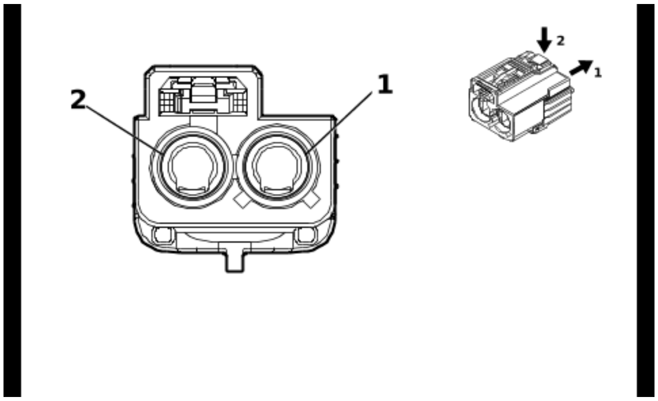
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

T4P High Frequency Antenna X1 (MAM)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(GPS/Cell) Coaxial Antenna Cell/GPS combined Signal	I	—

T4P High Frequency Antenna X1 (U2K)



5907715

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13516431
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Coax Type(CU)

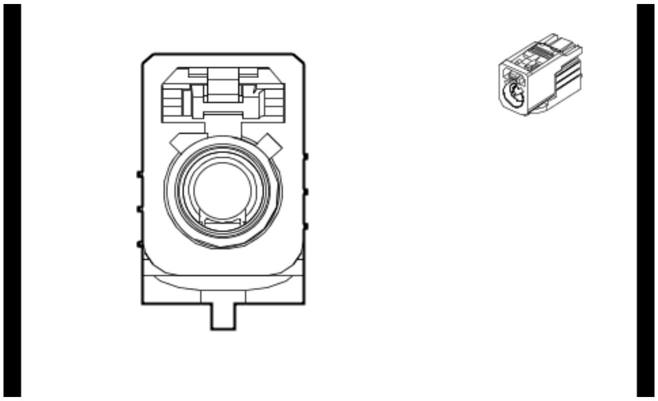
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

T4P High Frequency Antenna X1 (U2K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(AM/FM) Antenna RF Signal	I	—

T4P High Frequency Antenna X2 (- U2Q - U2K)



5633209

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13516408
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(BK)

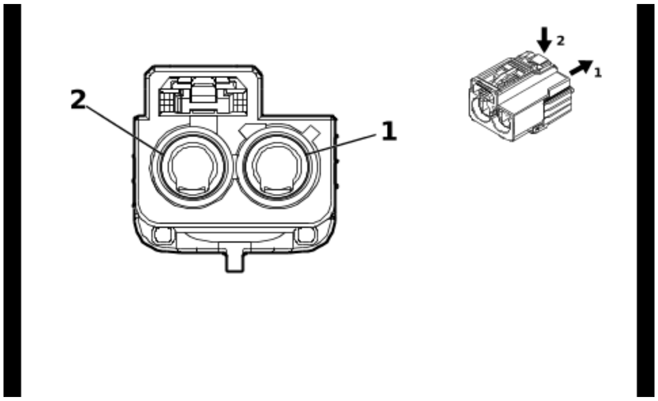
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

T4P High Frequency Antenna X2 (- U2Q - U2K)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(AM/FM) Antenna RF Signal	I	—

T4P High Frequency Antenna X2 (U2Q)



5633474

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13516422
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Coax Type(BK)

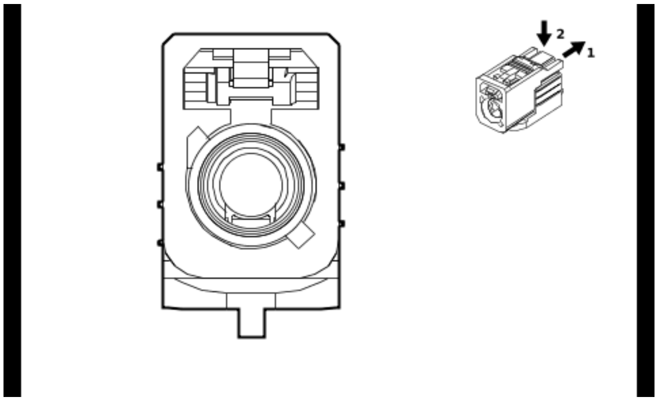
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

T4P High Frequency Antenna X2 (U2Q)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	(DAB/DMB) Coaxial Antenna DAB Signal	I	—

T4TA Auxiliary Wireless Communication Interface Antenna



5518436

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX
OEM Connector: 13516416
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(BG)

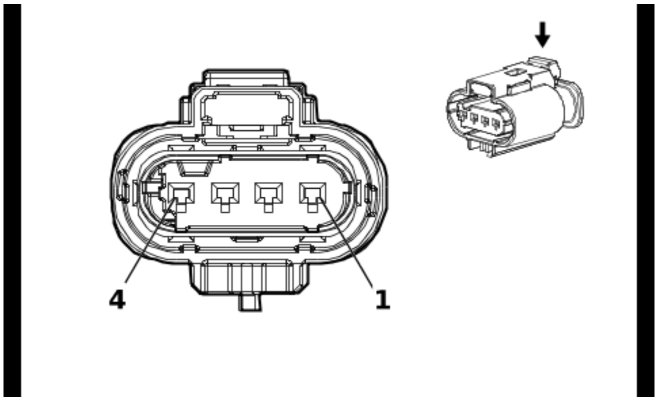
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

T4TA Auxiliary Wireless Communication Interface Antenna

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	Coax Cable	—	WiFi Antenna Coaxial Signal	I	—

T8A Ignition Coil 1



5402120

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10092979
Service Connector: 84889372
Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

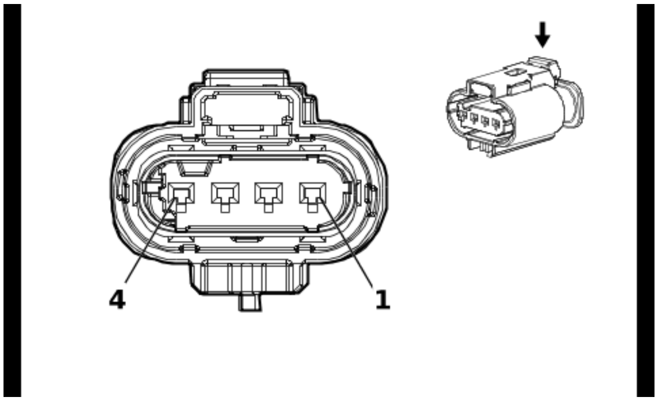
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

T8A Ignition Coil 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	6450	Engine Even Bank Ground	I	—
2	0.75	BK / BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.75	BU / VT	2121	Ignition Control 1	I	—
4	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	I	—

T8B Ignition Coil 2



5402120

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10092979
Service Connector: 84889372
Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

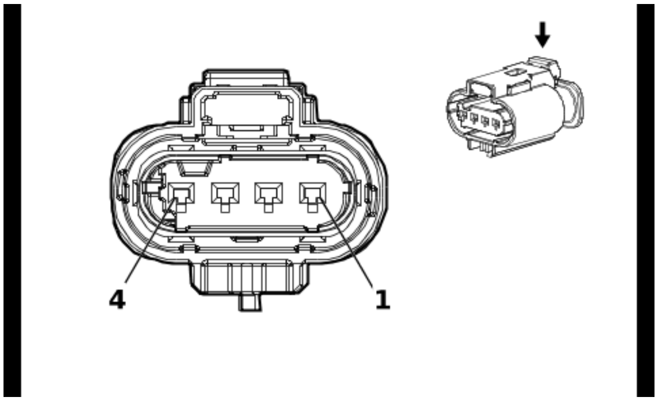
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

T8B Ignition Coil 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	6450	Engine Even Bank Ground	I	—
2	0.75	BK / BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.75	BU / WH	2122	Ignition Control 2	I	—
4	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	I	—

T8C Ignition Coil 3



5402120

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10092979
Service Connector: 84889372
Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

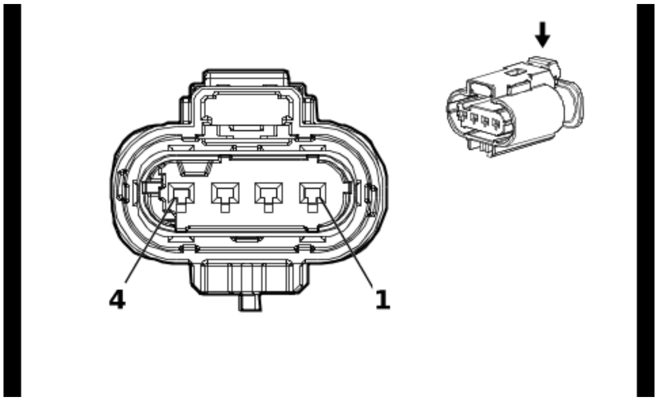
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

T8C Ignition Coil 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	6450	Engine Even Bank Ground	I	—
2	0.75	BK / BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.75	GN / BU	2123	Ignition Control 3	I	—
4	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	I	—

T8D Ignition Coil 4



5402120

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10092979
Service Connector: 84889372
Description: 4-Way F 1.2 Multilock Series, Sealed(BK)

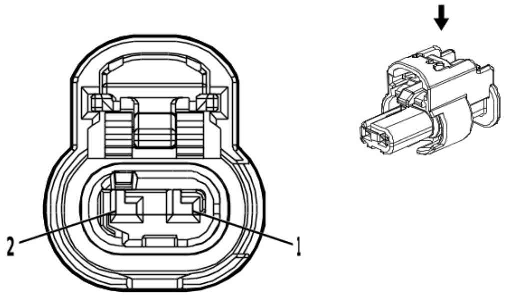
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

T8D Ignition Coil 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	6450	Engine Even Bank Ground	I	—
2	0.75	BK / BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.75	YE / BU	2124	Ignition Control 4	I	—
4	0.75	VT / BU	5291	Powertrain Main Relay Fused Supply Voltage 2	I	—

T10KA Low Frequency Console Number 2 Antenna



4690744

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 1-2296694-3
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

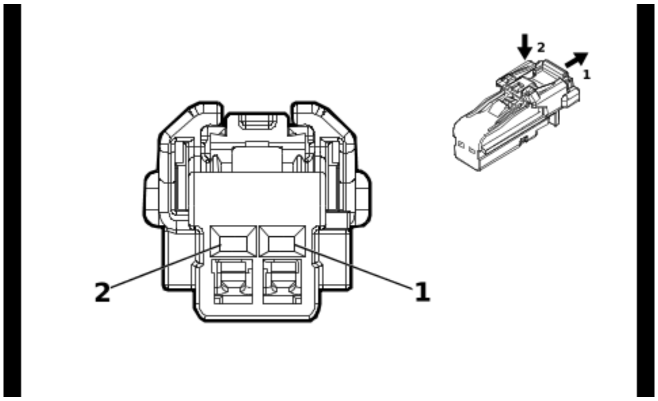
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required

T10KA Low Frequency Console Number 2 Antenna

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / BK	3552	Interior Passive Entry Antenna 1 High Signal	I	—
2	0.35	WH	3553	Interior Passive Entry Antenna 1 Low Signal	I	—

T10UA Low Frequency Console Antenna



4115691

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 6098-8988
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series(BK)

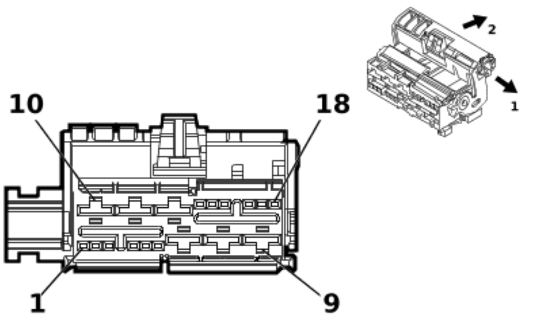
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

T10UA Low Frequency Console Antenna

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN / BK	4996	Immobilizer Antenna Signal [+]	I	—
2	0.35	WH / GY	4997	Immobilizer Antenna Low Signal	I	—

T19 Multifunction Power Supply Converter



3825662

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35509388
Service Connector: 13549243
Description: 18-Way F 0.64 MTS, 6.3 MCP Series(BK)

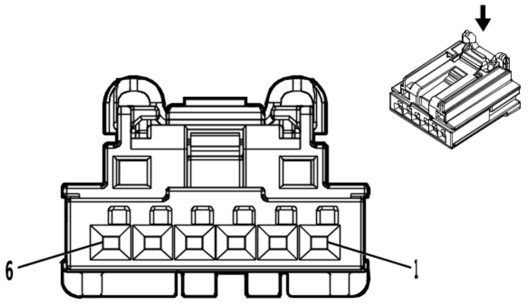
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300632	J-35616-64B (L-BU)	J-38125-215A
II	19367600	J-35616-42 (RD)	J-38125-556

T19 Multifunction Power Supply Converter

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.5	VT / GN	4320	Powertrain Sensor Bus Enable	I	—
5	0.5	YE / BK	625	Starter Enable Relay Control	I	—
6	—	—	—	Not Occupied	—	—
7	2.5	BK	3750	Ground	II	—
8	2.5	RD / VT	2640	Battery Positive Voltage	II	—
9	2.5	RD / GN	2173	12V Regulated Supply Voltage 2	II	—
10	2.5	RD / YE	2172	12V Regulated Supply Voltage 1	II	—
11	2.5	RD / BU	2540	Battery Positive Voltage	II	—
12	2.5	BK	3750	Ground	II	—
13	0.5	BU / GY	4054	Private Serial Data Powertrain CAN Bus [-] Serial Data	I	—
14	0.5	BU / GY	4054	Private Serial Data Powertrain CAN Bus [-] Serial Data	I	—
15	0.5	WH	4055	Private Serial Data Powertrain CAN Bus [+] Serial Data	I	—
16	0.5	WH	4055	Private Serial Data Powertrain CAN Bus [+] Serial Data	I	—
17 - 18	—	—	—	Not Occupied	—	—

T22 Wireless Accessory Charging Module (K4C)



5020940

Connector Part Information

Harness Type: Front Floor Console Wiring Harness Extension Harness
OEM Connector: 2035363-6
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Generation Y Series(BK)

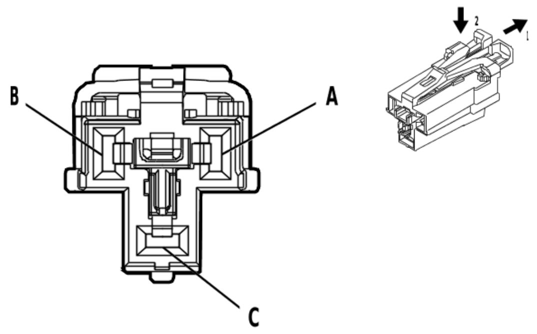
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

T22 Wireless Accessory Charging Module (K4C)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD / VT	6340	Battery Positive Voltage	I	—
2	0.5	BK	2050	Ground	I	—
3	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	—
4	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	—
5	0.35	BU / YE	4984	AUTOSAR CAN Bus [-] 5 Serial Data	I	—
6	0.35	BU / WH	4985	AUTOSAR CAN Bus [+] 5 Serial Data	I	—

X80L Front Floor Console Accessory Power Rear Receptacle (KCA)



4872413

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 33386302
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 2.8 APEX Series(GY)

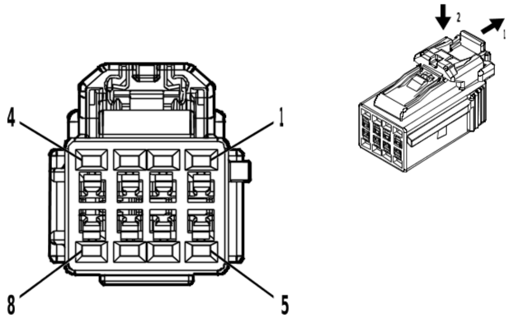
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-35 (VT)	No Tool Required

X80L Front Floor Console Accessory Power Rear Receptacle (KCA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	VT	1001	Retained Accessory Power Ignition Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1	BK	2050	Ground	I	—

X81ACA Front Floor Console Accessory Power Rear Receptacle - 110V AC



5086387

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 6098-8443
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.2 Series(BK)

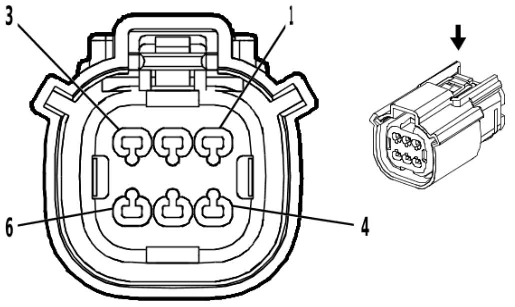
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required

X81ACA Front Floor Console Accessory Power Rear Receptacle - 110V AC

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	10117	AC Outlet Phase A Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	VT / RD	4049	AC Power Outlet Sensor High Reference	I	—
4	0.5	BU / BN	6807	DC/AC Inverter Control	I	—
5	0.75	RD	10118	AC Outlet Phase B Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	BK	2050	Ground	I	—
8	—	—	—	Not Occupied	—	—

X81AP Pickup Box Accessory Power Receptacle - 110V AC (KC9)



1986157

Connector Part Information

Harness Type: Body Rear Wiring Harness
OEM Connector: 33472-0616
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.5 MX Series, Sealed(BK)

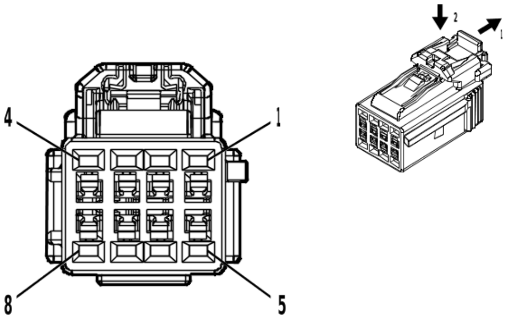
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required

X81AP Pickup Box Accessory Power Receptacle - 110V AC (KC9)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT / RD	4049	AC Power Outlet Sensor High Reference	I	—
2	0.5	GN / BN	2266	DC/AC Inverter Control 2	I	—
3	—	—	—	Not Occupied	—	—
4	0.75	BK / WH	10120	AC Outlet 2 Phase A Control	II	—
5	0.5	BK	850	Ground	I	—
6	0.75	RD / WH	10121	AC Outlet 2 Phase B Control	II	—

X81BCA Front Floor Console Accessory Power Rear Receptacle - 220V AC



5086387

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 6098-8443
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 1.2 Series(BK)

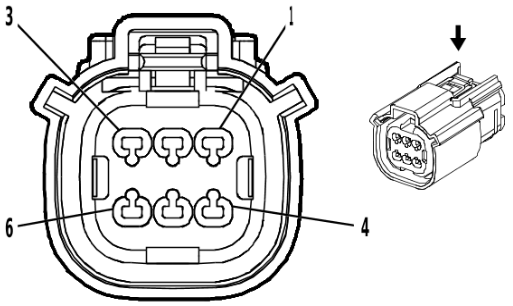
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X81BCA Front Floor Console Accessory Power Rear Receptacle - 220V AC

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK	10117	AC Outlet Phase A Control	I	—
2	—	—	—	Not Occupied	—	—
3	—	VT / RD	4049	AC Power Outlet Sensor High Reference	I	—
4	—	BU / BN	6807	DC/AC Inverter Control	I	—
5	—	RD	10118	AC Outlet Phase B Control	I	—
6	—	—	—	Not Occupied	—	—
7	—	BK	2050	Ground	I	—
8	—	—	—	Not Occupied	—	—

X81BP Pickup Box Accessory Power Receptacle - 220V AC



1986157

Connector Part Information

Harness Type: Pickup Box Accessory Power Receptacle Jumper Harness
OEM Connector: 13577153
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.5 MX Series, Sealed(BK)

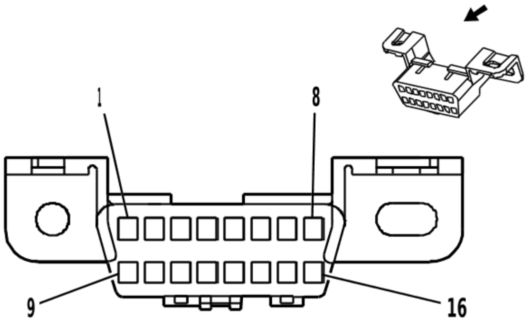
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X81BP Pickup Box Accessory Power Receptacle - 220V AC

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	VT / RD	4049	AC Power Outlet Sensor High Reference	I	—
2	—	GN / BN	2266	DC/AC Inverter Control 2	I	—
3	—	—	—	Not Occupied	—	—
4	—	BK / WH	10120	AC Outlet 2 Phase A Control	I	—
5	—	BK	850	Ground	I	—
6	—	RD / WH	10121	AC Outlet 2 Phase B Control	I	—

X84 Data Link Connector



68793

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 12110250
Service Connector: 12110250
Description: 16-Way F 150 Metri-Pack Series(BK)

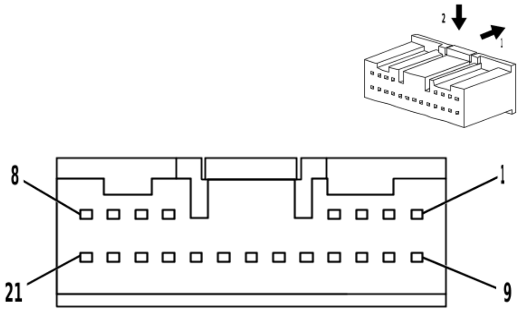
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13580059	J-35616-14 (GN)	J-38125-12A
II	Service by Cable	No Tool Required	No Tool Required

X84 Data Link Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BU / BN	4983	AUTOSAR CAN Bus [+] 7 Serial Data	I	—
2	0.35	GN	2578	Private Serial Data Presentation CAN Bus [+] 1 Serial Data	I	—
3	0.35	YE / WH	4973	Ethernet Bus 1R [+]	II	—
4	0.75	BK	2050	Ground	I	—
5	0.5	BK / WH	2151	Signal Ground	I	—
6	0.35	YE	4981	AUTOSAR CAN Bus [+] 6 Serial Data	I	—
7	0.35	VT	2580	Private Serial Data Presentation CAN Bus [+] 2 Serial Data	I	—
8	0.35	WH	7207	Ethernet Bus 1 Enable Signal	I	—
9	0.35	WH	4982	AUTOSAR CAN Bus [-] 7 Serial Data	I	—
10	0.35	BN	2577	Private Serial Data Presentation CAN Bus [-] 1 Serial Data	I	—
11	0.35	YE	4972	Ethernet Bus 1R [-]	II	—
12	0.35	GN / WH	4975	Ethernet Bus 1T [+]	II	—
13	0.35	GN	4974	Ethernet Bus 1T [-]	II	—
14	0.35	WH	4980	AUTOSAR CAN Bus [-] 6 Serial Data	I	—
15	0.35	GY	2579	Private Serial Data Presentation CAN Bus [-] 2 Serial Data	I	—
16	0.5	RD / BU	3240	Battery Positive Voltage	I	—

X85 Steering Wheel Airbag Coil X1



3960237

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: ATLCPB-21B-2AY
Service Connector: 13510218
Description: 21-Way F 0.64 Series(YE)

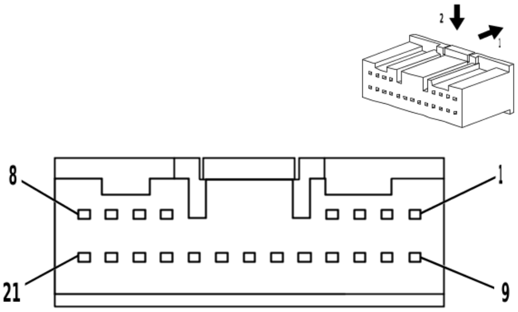
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575742	J-35616-64B (L-BU)	J-38125-215A
II	13575865	J-35616-64B (L-BU)	J-38125-215A

X85 Steering Wheel Airbag Coil X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK / WH	6051	Steering Wheel Ground	I	—
2	0.35	GN / WH	3287	Horn Switch Signal	I	—
3 - 6	—	—	—	Not Occupied	—	—
7	0.5	BN / OG	3020	Steering Wheel Air Bag Stage 1 Low Control	II	—
8	0.5	OG / VT	3021	Steering Wheel Air Bag Stage 1 High Control	II	—
9	0.35	GN / GY	10652	Radio LIN Bus 1	I	—
10	0.35	GN	2858	Body Control Module LIN Bus 12	I	—
11	0.35	GY / GN	11874	Cruise Control Bank 1 Switch Signal	I	—
12	0.35	BK / VT	1449	Steering Wheel Resistor Ladder Low Reference	I	—
13	—	—	—	Not Occupied	—	—
14	0.35	RD / GN	5140	Battery Positive Voltage	I	—
15	0.35	BN / GN	11875	Cruise Control Bank 2 Switch Signal	I	—
16 - 19	—	—	—	Not Occupied	—	—
20	0.5	BK	2050	Ground	I	—
21	0.35	RD / BN	10040	Battery Positive Voltage	I	—

X85 Steering Wheel Airbag Coil X2



3960237

Connector Part Information

Harness Type: Steering Wheel Horn Switch Wiring Harness
OEM Connector: 13510218
Service Connector: Service by Harness - See Part Catalog
Description: 21-Way F 0.64 Series(YE)

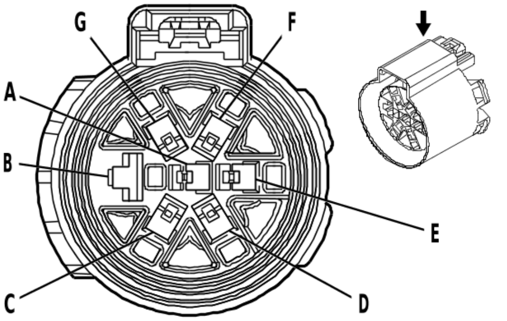
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X85 Steering Wheel Airbag Coil X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK / WH	6051	Steering Wheel Ground	I	—
2	—	GN / WH	3287	Horn Switch Signal	I	—
3 - 6	—	—	—	Not Occupied	—	—
7	—	BN / OG	3020	Steering Wheel Air Bag Stage 1 Low Control	I	—
8	—	OG / VT	3021	Steering Wheel Air Bag Stage 1 High Control	I	—
9	—	RD / BN	10040	Battery Positive Voltage	I	—
10	—	BK	6050	Steering Wheel Ground	I	—
11 - 14	—	—	—	Not Occupied	—	—
15	—	GY / GN	5737	Distance Sensing Cruise Control Gap Up/Down Switch Signal	I	—
16	—	RD / GN	5140	Battery Positive Voltage	I	—
17	—	—	—	Not Occupied	—	—
18	—	BK / VT	1449	Steering Wheel Resistor Ladder Low Reference	I	—
19	—	BN / GN	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
20	—	GN / BK	2858	Body Control Module LIN Bus 12	I	—
21	—	GN / BK	10652	Radio LIN Bus 1	I	—

X88B Tow Vehicle Electrical Receptacle (U1D & Z82)



2056936

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 13857223
Service Connector: 86816072
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed(BK)

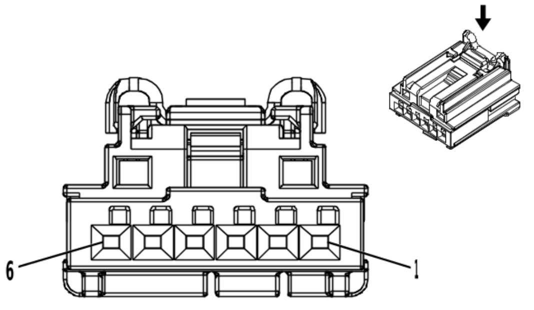
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required
II	Not required	J-35616-4A (PU)	No Tool Required

X88B Tow Vehicle Electrical Receptacle (U1D & Z82)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75 0.75	GN / WH WH / GN	5189 1624	Trailer Backup Lamp Control Trailer Backup Lamp Control	II II	Z82+ U1D Z82- U1D
B	5	WH	22	Trailer Ground	I	—
C	2.5	BU	47	Trailer Auxiliary Control	II	—
D	0.75	GN / VT	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	3	RD / GY	1042	Battery Positive Voltage	II	—
F	1.5	GY / BN	2109	Trailer Park Lamp Control	II	—
G	0.75	YE / GY	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

X92C Single Charge Only 2nd Row Receptacle - Floor Console Rear



3960313

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 2035363-4
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Generation Y Series(BK)

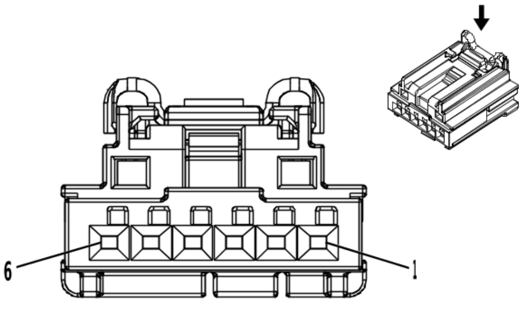
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

X92C Single Charge Only 2nd Row Receptacle - Floor Console Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT	4701	Retained Accessory Power Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK	2050	Ground	I	—
4 - 6	—	—	—	Not Occupied	—	—

X92G USB 2 Port Receptacle X1



3960313

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 2035363-4
Service Connector: 19332786
Description: 6-Way F 0.64 Generation Y Series(BK)

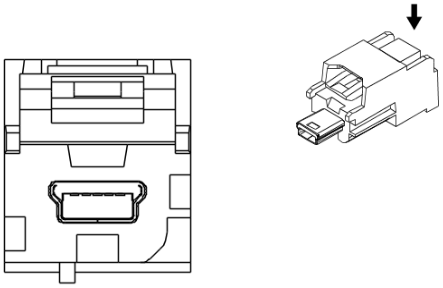
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-64B (L-BU)	No Tool Required

X92G USB 2 Port Receptacle X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	RD / WH	7240	Battery Positive Voltage	I	—
2	0.35	YE	6817	LED Backlight Dimming Control 1	I	—
3	0.5	BK / WH	2151	Signal Ground	I	—
4 - 6	—	—	—	Not Occupied	—	—

X92G USB 2 Port Receptacle X2



Connector Part Information

Harness Type: Instrument Panel Wiring Harness USB
OEM Connector: 13585100
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 5-Way M 2.0 Mini-B USB Type(GY)

Terminal Part Information

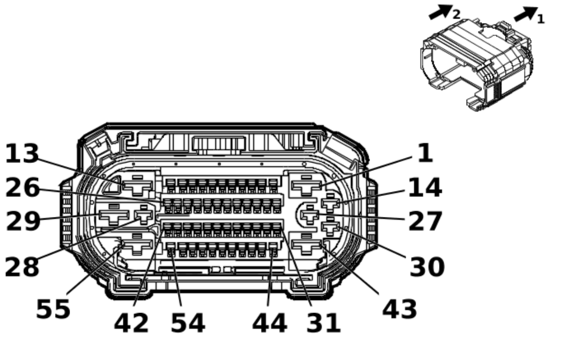
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X92G USB 2 Port Receptacle X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
—	—	USB	—	USB Serial Data	I	—

Inline Harness Connector End Views

X100 Chassis Wiring Harness to Body Wiring Harness



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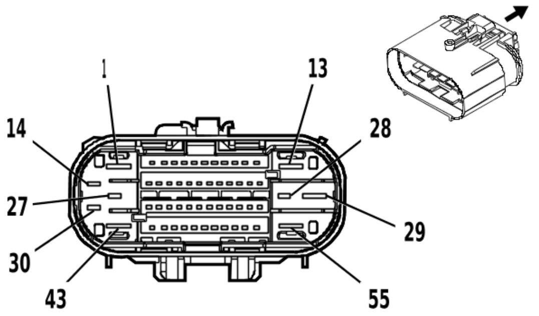


4994369

Connector Part Information

Harness Type: Chassis Wiring Harness

OEM Connector: 35016653

Service Connector: 19371184

Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed(GY)

Connector Part Information

Harness Type: Body Wiring Harness

OEM Connector: 35205174

Service Connector: 84727363

Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19370818	J-35616-12 (BU)	J-38125-215A
II	84634921	J-35616-42 (RD)	J-38125-212
III	84847992	J-35616-32 (OG)	J-38125-36
IV	84867140	J-35616-13 (BU)	J-38125-215A
V	84992391	J-35616-5 (PU)	J-38125-215A

X100 Chassis Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	6	GY	4368	II	—	Right Park Brake Motor Low Reference	1	2.5	GY	4368	III	—
2	0.5	VT / BU	5705	I	—	Powertrain Main Relay Control	2	0.5	VT / BU	5705	IV	—
3	0.5	BK	150	I	—	Ground	3	0.5	BK	150	IV	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	BU / YE	4979	I	—	AUTOSAR CAN Bus [+] 2 Serial Data	5	0.5	BU / YE	4979	IV	—
6	0.5	WH	4978	I	—	AUTOSAR CAN Bus [-] 2 Serial Data	6	0.5	WH	4978	IV	—
7	—	—	—	—	—	Not Occupied	7	—	—	—	—	—

X100 Chassis Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	BU / WH	1334	I	—	Left Rear Turn Signal Lamp Control 2	8	0.5	BU / WH	1334	IV	—
9	0.75	BU / VT	1335	I	—	Right Rear Turn Signal Lamp Control 2	9	0.5	BU / VT	1335	IV	—
10	—	—	—	—	—	Not Occupied	10	—	—	—	—	—
11	0.5	BN / BU	6993	I	—	Left Rear Park Lamp Control	11	0.5	BN / BU	6993	IV	—
12	0.5	BN / GY	6995	I	—	Right Rear Park Lamp Control	12	0.5	BN / GY	6995	IV	—
13	6	RD / BN	440	II	—	Battery Positive Voltage	13	6	RD / BN	440	III	—
14	—	—	—	—	—	Not Occupied	14	—	—	—	—	—
15	0.75	BU / WH	10119	I	—	AC Outlet 2 Low Reference	15	0.75	BK	10119	IV	—
16	0.75	BK / WH	10120	I	—	AC Outlet 2 Phase A Control	16	0.75	BK / WH	10120	IV	—
17	0.75	RD / WH	10121	I	—	AC Outlet 2 Phase B Control	17	0.75	RD / WH	10121	IV	—
18 - 19	—	—	—	—	—	Not Occupied	18 - 19	—	—	—	—	—
20	0.5	GY / VT	2691	I	—	Rear Closure Actuator Lock Control	20	0.5	GY / VT	2691	IV	—
21	0.5	GY / BK	2680	I	—	Lock Actuators Unlock Control 2	21	0.5	GY / BK	2680	IV	—
22 - 23	—	—	—	—	—	Not Occupied	22 - 23	—	—	—	—	—
24	0.75	GY / BU	840	I	—	Battery Positive Voltage	24	0.75	GY / BU	840	IV	—
25	0.5	GN / YE	6846	I	—	Rear License Plate Lamp Control	25	0.35	GN / YE	6846	IV	—
26	0.5	BN / GN	4246	I	—	Identification Lamp Control	26	0.5	BN / GN	4246	IV	—
27	—	—	—	—	—	Not Occupied	27	—	—	—	—	—
28	—	—	—	—	—	Ground	28	2.5	BK	150	V	—
29	6	GY / BK	4369	II	—	Left Park Brake Motor Low Reference	29	2.5	GY / BK	4369	III	—
30	—	—	—	—	—	Not Occupied	30	—	—	—	—	—

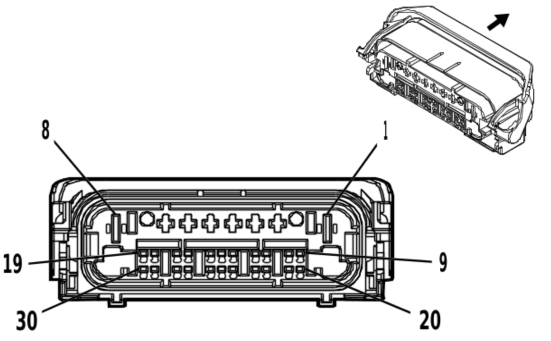
X100 Chassis Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
31	0.5	BN / BU	1602	I	—	Front Brake Pad Wear Sensor Signal	31	0.5	BN / BU	1602	IV	—
32	0.5	BK / WH	2051	I	—	Signal Ground	32	0.5	BK / WH	2051	IV	—
33	0.5	YE	872	I	—	Right Front Wheel Speed Sensor Signal	33	0.5	YE	872	IV	—
34	0.5	GY / BN	7065	I	—	Right Front Wheel Speed Sensor Control	34	0.5	GY / BN	7065	IV	—
35	0.5	GY	830	I	—	Left Front Wheel Speed Sensor Signal	35	0.5	GY	830	IV	—
36	0.5	GY / WH	7064	I	—	Left Front Wheel Speed Sensor Control	36	0.5	GY / WH	7064	IV	—
37	0.5	VT	882	I	—	Right Rear Wheel Speed Sensor Signal	37	0.5	VT	882	IV	—
38	0.5	GY / YE	7128	I	—	Right Rear Wheel Speed Sensor Control	38	0.5	GY / YE	7128	IV	—
39	0.5	BU	884	I	—	Left Rear Wheel Speed Sensor Signal	39	0.5	BU	884	IV	—
40	0.5	GY / BK	7127	I	—	Left Rear Wheel Speed Sensor Control	40	0.5	GY / BK	7127	IV	—
41 - 42	—	—	—	—	—	Not Occupied	41 - 42	—	—	—	—	—
43	6	GN / VT	1988	II	—	Right Park Brake Motor Apply Control	43	2.5	GN / VT	1988	III	—
44	—	—	—	—	—	Not Occupied	44	—	—	—	—	—
45	0.5	GN / YE	1616	I	—	Rear Brake Pad Wear Sensor Signal	45	0.5	GN / YE	1616	IV	—
46	0.5	YE	2375	I	—	Left Rear Outer Parking Assist Sensor Signal	46	—	—	—	—	—
47	0.75	BN / WH	2374	I	—	Object Sensor Voltage Reference	47	—	—	—	—	—

X100 Chassis Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
48	0.5	YE / BU	2376	I	—	Left Rear Middle Parking Assist Sensor Signal	48	—	—	—	—	—
49	0.5	YE / VT	2378	I	—	Right Rear Outer Parking Assist Sensor Signal	49	—	—	—	—	—
50	0.75	BK / GY	2379	I	—	Object Sensor Low Reference	50	—	—	—	—	—
51	0.5	YE / WH	2377	I	—	Right Rear Middle Parking Assist Sensor Signal	51	—	—	—	—	—
52 - 53	—	—	—	—	—	Not Occupied	52 - 53	—	—	—	—	—
54	0.75	BK	0	I	—	—	54	0.75	BK	2206	IV	—
55	6	WH	2001	II	—	Left Park Brake Motor Apply Control	55	2.5	WH	2001	III	—

X101 Body Wiring Harness to Chassis Wiring Harness



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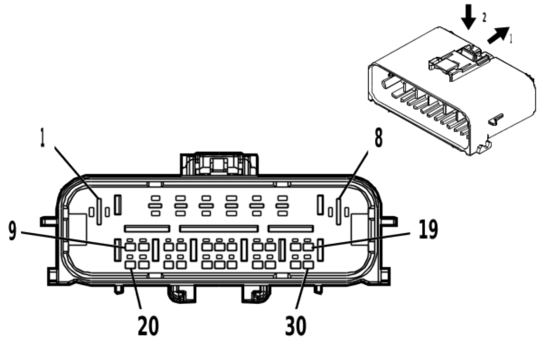


4817393

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 2301462-1
Service Connector: 19368311
Description: 30-Way F 1.2 MCON, 2.8, 6.3 MCP Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 2401461-1
Service Connector: 19371177
Description: 30-Way M 1.2 MCON, 2.8, 6.3 MCP Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19331733	J-35616-12 (BU)	J-38125-215A
II	19371214	J-35616-4A (PU)	J-38125-215A
III	13578827	J-35616-5 (PU)	J-38125-36
IV	19330704	J-35616-13 (BU)	J-38125-215A

X101 Body Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	BK	2250	II	—	Ground	2	0.5	BK	2250	III	—
3	0.5	WH / YE	7541	II	—	Right Rear Stop Lamp Control	3	0.5	WH / YE	7541	III	—
4	0.5	GY / YE	7542	II	—	Left Rear Stop Lamp Control	4	0.5	GY / YE	7542	III	—
5 - 6	—	—	—	—	—	Not Occupied	5 - 6	—	—	—	—	—
7	2.5	BU	47	II	—	Trailer Auxiliary Control	7	2.5	BU	47	III	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—
9	0.5	GN / WH	24	I	—	Backup Lamp Control	9	0.75	GN / WH	24	IV	—
10	0.5	WH / BK	2223	I	—	Trailer Brake Apply Signal	10	0.5	WH / BK	2223	IV	—
11	0.5	YE / BK	2224	I	—	Trailer Brake Enable Signal	11	0.5	YE / BK	2224	IV	—

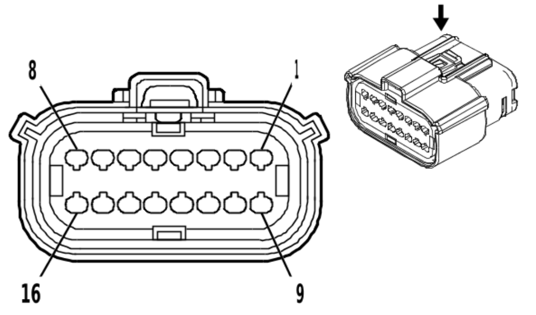
X101 Body Wiring Harness to Chassis Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12	0.5	VT / BK	739	I	—	Run/Crank Ignition 1 Voltage	12	0.5	VT / BK	739	IV	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.35	BN / YE	820	I	—	Center High Mounted Stop Lamp Supply Voltage	14	0.5	BN / YE	820	IV	—
15	0.5	GN / BU	2733	I	—	Brake System Control Module LIN Bus 2	15	0.5	GN / BU	2733	IV	—
16	0.5	BU / YE	4979	I	—	AUTOSAR CAN Bus [+] 2 Serial Data	16	0.5	BU / YE	4979	IV	—
17	0.5	WH	4978	I	—	AUTOSAR CAN Bus [-] 2 Serial Data	17	0.5	WH	4978	IV	—
18	0.5	BU / YE	4979	I	—	AUTOSAR CAN Bus [+] 2 Serial Data	18	0.5	BU / YE	4979	IV	—
19	0.5	WH	4978	I	—	AUTOSAR CAN Bus [-] 2 Serial Data	19	0.5	WH	4978	IV	—
20	0.5	GN / BN	2266	I	—	DC/AC Inverter Control 2	20	0.5	GN / BN	2266	IV	—
21	0.5	VT / RD	4049	I	—	AC Power Outlet Sensor High Reference	21	0.5	VT / RD	4049	IV	—
22	0.5	YE / GN	7122	I	—	Axle Differential Lock Switch Signal	22	0.5	YE / GN	7122	IV	—
23	0.5	YE	7115	I	—	Rear Axle Differential Lock Indicator Control	23	0.5	YE	7115	IV	—
24	0.5	VT / GY	7117	I	—	Front Axle Differential Lock Indicator Control	24	0.5	VT / GY	7117	IV	—
25	0.5	BU / VT	4101	I	—	AUTOSAR CAN Bus [+] 4 Serial Data	25	0.5	BU / VT	4101	IV	—
26	0.5	WH	4100	I	—	AUTOSAR CAN Bus [-] 4 Serial Data	26	0.5	WH	4100	IV	—
27	0.5	WH	4055	I	—	Private Serial Data Powertrain CAN Bus [+] Serial Data	27	0.5	WH	4055	IV	—
28	0.5	BU / GY	4054	I	—	Private Serial Data Powertrain CAN Bus [-] Serial Data	28	0.5	BU / GY	4054	IV	—

X101 Body Wiring Harness to Chassis Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
29	0.5	BU / BK	4977	I	—	AUTOSAR CAN Bus [+] 3 Serial Data	29	0.5	BU / BK	4977	IV	—
30	0.5	WH	4976	I	—	AUTOSAR CAN Bus [-] 3 Serial Data	30	0.5	WH	4976	IV	—

X107 Chassis Wiring Harness to Power Steering Wiring Harness



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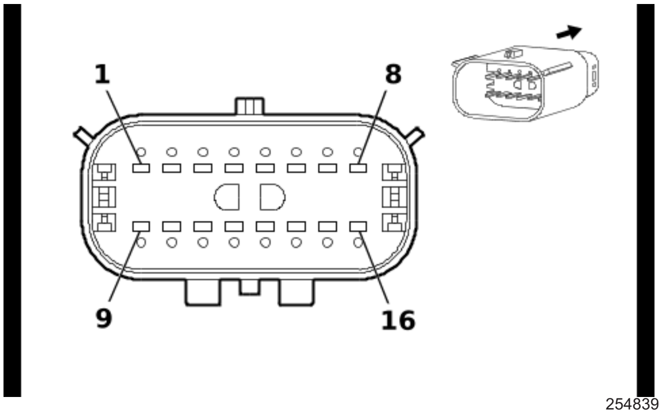


2548390

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 33472-1606
Service Connector: 13584788
Description: 16-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Power Steering Wiring Harness
OEM Connector: 33482-8601
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M 1.5 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368973	J-35616-2A (GY)	J-38125-217
II	Not required	J-35616-3 (GY)	No Tool Required

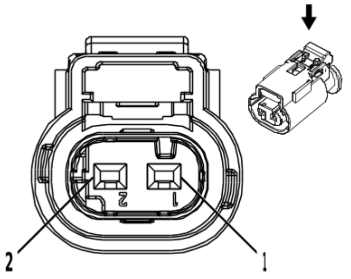
X107 Chassis Wiring Harness to Power Steering Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BU / YE	4979	I	—	AUTOSAR CAN Bus [+] 2 Serial Data	1	0.5	BU / YE	4979	II	—
2	0.5	WH	4978	I	—	AUTOSAR CAN Bus [-] 2 Serial Data	2	0.5	WH	4978	II	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—
5	0.5	BU / YE	4979	I	—	AUTOSAR CAN Bus [+] 2 Serial Data	5	0.5	BU / YE	4979	II	—
6	0.5	WH	4978	I	—	AUTOSAR CAN Bus [-] 2 Serial Data	6	0.5	WH	4978	II	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—
9	0.75	VT / WH	7256	I	—	Front Differential Lock Actuator Control	9	0.75	VT / WH	7256	II	—
10	0.75	WH / BK	7254	I	—	Front Differential Lock Actuator Low Control	10	0.75	WH / BK	7254	II	—
11 - 12	—	—	—	—	—	Not Occupied	11 - 12	—	—	—	—	—

X107 Chassis Wiring Harness to Power Steering Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
13	0.5	YE / WH	1695	I	—	4WD Locked Range Indicator Control	13	0.5	YE / WH	1695	II	—
14	0.5	GY / BK	1570	I	—	Front Axle Actuator Control	14	0.5	GY / BK	1570	II	—
15	0.5	BK	2250	I	—	Ground	15	0.5	BK	2250	II	—
16	0.5	GN	8016	I	—	Secondary Axle Motor Control	16	0.5	GN	8016	II	—

X144 Engine Wiring Harness to Oil Pump Flow Control Solenoid Valve Harness



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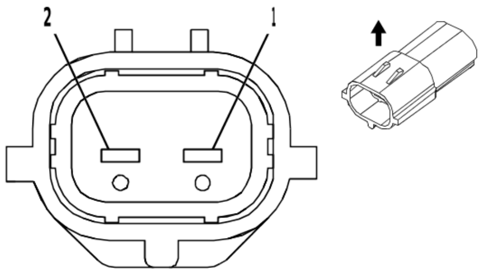


2684367

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 10010337
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed(BK)

Connector Part Information

Harness Type: Oil Pump Flow Control Solenoid Valve Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M (BK)

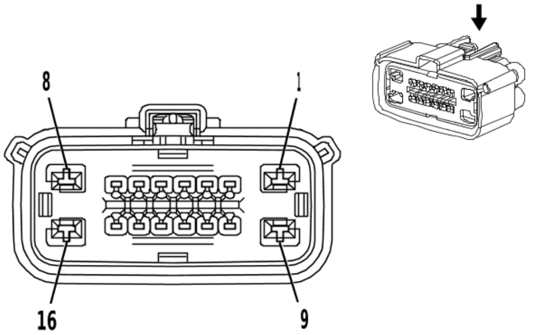
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	No Tool Required	No Tool Required

X144 Engine Wiring Harness to Oil Pump Flow Control Solenoid Valve Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE / BN	106	I	—	Oil Pump Motor Control	1	0.5	YE / BN	106	II	—
2	0.5	BU	179	I	—	Engine Oil Pump Control	2	0.5	BU	179	II	—

X150 Body Wiring Harness to Forward Lamp Wiring Harness



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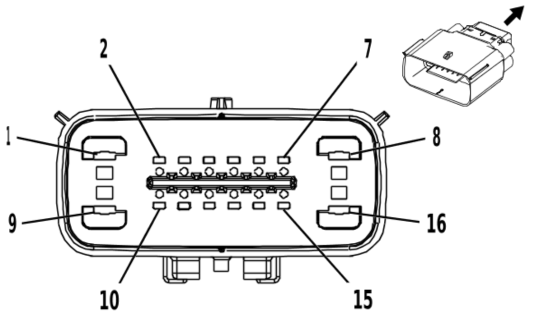


2373686

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 34985-1606
Service Connector: 19352906
Description: 16-Way F 1.5, 2.8 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 34986-1601
Service Connector: 19331031
Description: 16-Way M 1.5, 2.8 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576377	J-35616-35 (VT)	J-38125-12A
II	85528055	J-35616-2A (GY)	J-38125-217
III	19366658	J-35616-5 (PU)	J-38125-12A
IV	86800300	J-35616-3 (GY)	J-38125-217

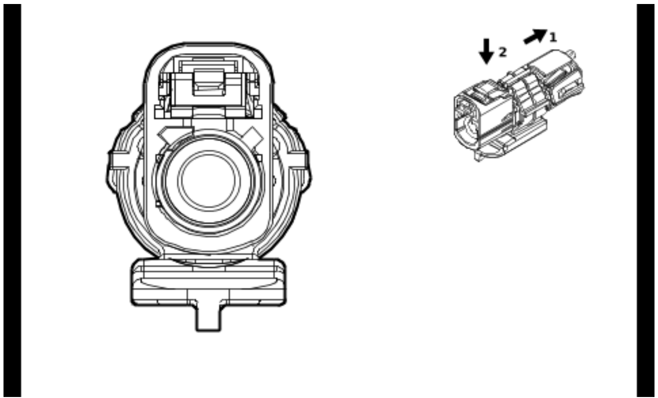
X150 Body Wiring Harness to Forward Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	RD / WH	640	I	—	Battery Positive Voltage	1	0.75	RD / WH	640	III	—
2	0.75	YE	712	II	—	Left Headlamp Low Beam Control	2	0.5	YE	712	IV	—
3	0.75	WH	711	II	—	Left Headlamp High Beam Control	3	0.5	WH	711	IV	—
4	0.35	WH / YE	1254	II	—	Left Front Park Lamp Control	4	0.5	WH / YE	1254	IV	—
5	0.5	WH / YE	1204	II	—	Left Park Lamp Control 2	5	—	—	—	—	—
6 - 8	—	—	—	—	—	Not Occupied	6 - 8	—	—	—	—	—
9	2.5	BK	150	I	—	Ground	9	2.5	BK	150	III	—
10	0.5	GY / BU	7538	II	—	Left Front DRL Control	10	0.5	GY / BU	7538	IV	—
11	0.5	BU / WH	1314	II	—	Left Front Turn Signal Lamp Control	11	0.5	BU / WH	1314	IV	—

X150 Body Wiring Harness to Forward Lamp Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12	0.35	VT / BK	6568	II	—	Front Turn Signal Lamp Feedback Signal	12	0.5	VT / BK	6568	IV	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	OG / YE	354	II	—	Left Front Impact Discriminating Sensor Signal	14	0.5	OG / YE	354	IV	—
15	0.5	BK / OG	5045	II	—	Left Front Impact Discriminating Sensor Low Reference	15	0.5	BK / OG	5045	IV	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—

X156 Body Wiring Harness to Forward Lamp Wiring Harness (UV2 / UXA)



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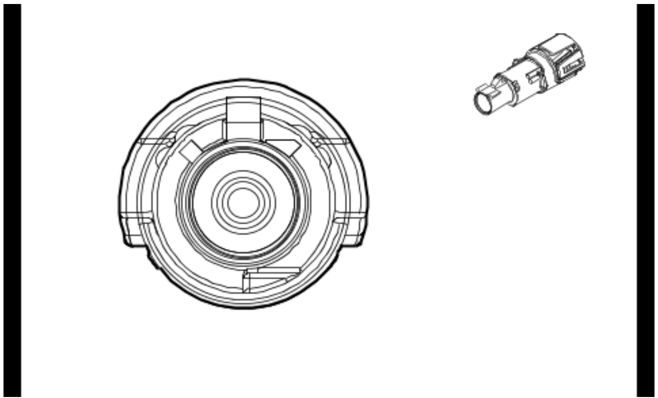


5518522

Connector Part Information

Harness Type: Body Wiring Harness COAX

OEM Connector: 13529796

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type, Sealed(BK)

Connector Part Information

Harness Type: Forward Lamp Wiring Harness COAX

OEM Connector: 13516806

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way M Coax Type, Sealed(BK)

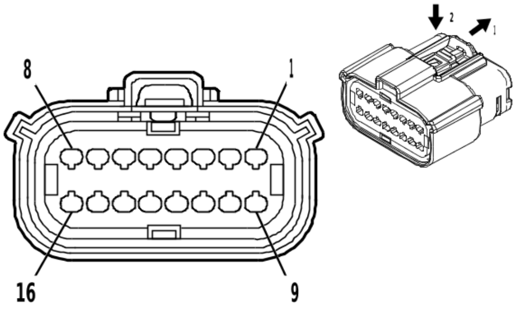
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X156 Body Wiring Harness to Forward Lamp Wiring Harness (UV2 / UXA)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	Front Vision Camera 1 Coaxial Video Signal	—	—	Coax Cable	—	I	—

X160 Engine Wiring Harness to Fuel Injector Wiring Harness



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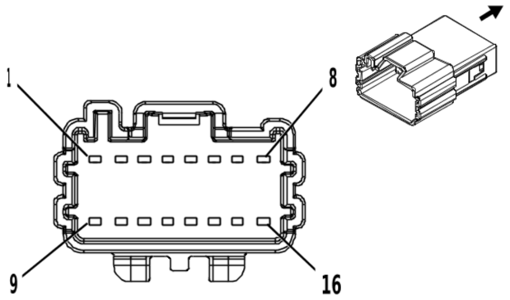


4223086

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 33472-1866
Service Connector: 13584788
Description: 16-Way F 1.5 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Fuel Injector Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19368973	J-35616-2A (GY)	J-38125-217
II	Not required	No Tool Required	No Tool Required

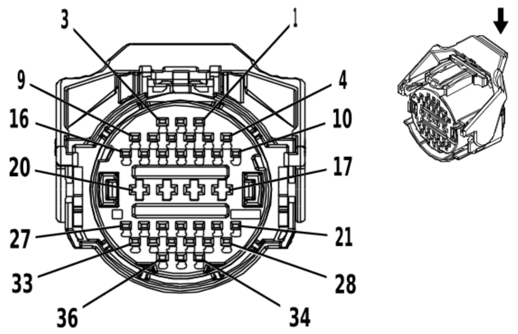
X160 Engine Wiring Harness to Fuel Injector Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT / GY	496	I	—	Knock Sensor 1 Signal	1	0.5	VT / GY	496	II	—
2	0.75	BN	4801	I	—	Direct Fuel Injector High Voltage Control Cylinder 1	2	0.75	BN	4801	II	—
3	0.5	WH / RD	480	I	—	Engine Control Vehicle Sensors 5 Volt Reference 1	3	0.5	WH / RD	480	II	—
4	0.75	GY / BU	4804	I	—	Direct Fuel Injector High Voltage Control Cylinder 4	4	0.75	GY / BU	4804	II	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.75	GN	4803	I	—	Direct Fuel Injector High Voltage Control Cylinder 3	6	0.75	GN	4803	II	—
7	0.75	BU	4802	I	—	Direct Fuel Injector High Voltage Control Cylinder 2	7	0.75	BU	4802	II	—

X160 Engine Wiring Harness to Fuel Injector Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	WH / GY	1876	I	—	Knock Sensor 2 Signal	8	0.5	WH / GY	1876	II	—
9	0.5	BK / YE	1716	I	—	Knock Sensor Low Reference 1	9	0.5	BK / YE	1716	II	—
10	0.75	BN / WH	4901	I	—	Direct Fuel Injector High Voltage Supply Cylinder 1	10	0.75	BN / WH	4901	II	—
11	0.5	BU / WH	2918	I	—	Fuel Rail Pressure Sensor Signal	11	0.5	BU / WH	2918	II	—
12	0.5	BK / GN	580	I	—	Engine Control Sensors Low Reference 2	12	0.5	BK / GN	580	II	—
13	0.75	BU / WH	4904	I	—	Direct Fuel Injector High Voltage Supply Cylinder 4	13	0.75	BU / WH	4904	II	—
14	0.75	GN / GY	4903	I	—	Direct Fuel Injector High Voltage Supply Cylinder 3	14	0.75	GN / GY	4903	II	—
15	0.75	BU / GY	4902	I	—	Direct Fuel Injector High Voltage Supply Cylinder 2	15	0.75	BU / GY	4902	II	—
16	0.5	BK / GY	2303	I	—	Knock Sensor Low Reference 2	16	0.5	BK / GY	2303	II	—

X175 Engine Wiring Harness to Automatic Transmission Wiring Harness



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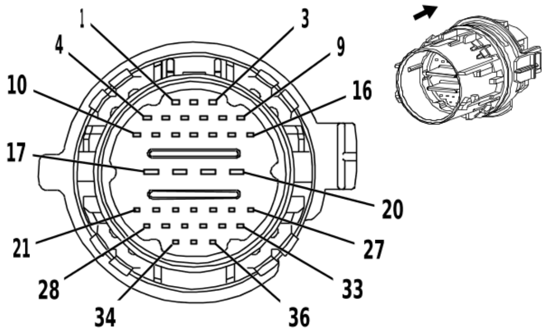


3977661

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 2138314-1
Service Connector: 19329922
Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed(BK)

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 36-Way M (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575368	J-35616-35 (VT)	J-38125-36
II	19300445	J-35616-12 (BU)	J-38125-11A
III	Not required	No Tool Required	No Tool Required

X175 Engine Wiring Harness to Automatic Transmission Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN / BN	6380	II	—	Torque Converter Clutch Enable Solenoid Valve A Control	1	0.5	GN / BN	6380	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.5	VT / WH	422	II	—	Torque Converter Clutch Solenoid Valve Control	3	0.5	VT / WH	422	III	—
4	0.5	GN / BU	1530	II	—	Transmission Line Pressure Control Solenoid Valve Control	4	0.5	GN / BU	1530	III	—
5	0.5	BN	6400	II	—	Clutch Solenoid Valve A Control	5	0.5	BN	6400	III	—
6	0.5	BU	6401	II	—	Clutch Solenoid Valve B Control	6	0.5	BU	6401	III	—

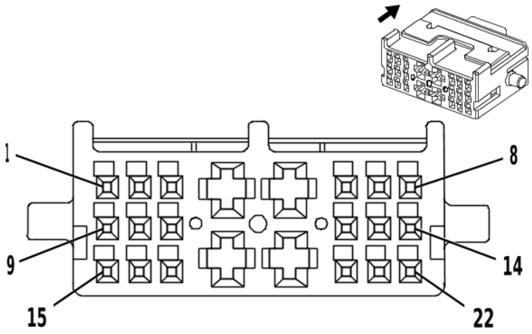
X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	YE / BN	6210	II	—	Torque Converter Clutch Enable Solenoid Valve B Control	7	0.5	YE / BN	6210	III	—
8	0.5	GN / WH	2968	II	—	Transmission Auxiliary Fluid Pump Control	8	0.5	GN / WH	2968	III	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	GY	6402	II	—	Clutch Solenoid Valve C Control	10	0.5	GY	6402	III	—
11	0.5	BK / BN	586	II	—	Transmission Fluid Temperature Sensor Low Reference	11	0.5	BK / BN	586	III	—
12	0.5	BN / WH	585	II	—	Transmission Fluid Temperature Sensor Signal	12	0.5	BN / WH	585	III	—
13	0.5	WH	4508	II	—	Transmission Clutch G Control	13	0.5	WH	4508	III	—
14	0.5	WH / BU	4507	II	—	Transmission Clutch H Control	14	0.5	WH / BU	4507	III	—
15 - 16	—	—	—	—	—	Not Occupied	15 - 16	—	—	—	—	—
17	1.5	RD / BU	840	I	—	Battery Positive Voltage	17	1.5	RD / BU	840	III	—
18	0.75	GN / GY	6387	I	—	Transmission High Side Driver 1 Control	18	0.75	GN / GY	6387	III	—
19	0.75	GY / BN	6388	I	—	Transmission High Side Driver 2 Control	19	0.75	GY / BN	6388	III	—
20	1.5	BK	450	I	—	Ground	20	1.5	BK	6250	III	—
21	0.5	GN / BK	3337	II	—	Transmission Internal Mode Switch Mode Control Y	21	0.5	GN / BK	3337	III	—
22	0.5	BU / WH	3338	II	—	Transmission Internal Mode Switch Mode Control X	22	0.5	BU / WH	3338	III	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	GY / BU	6358	II	—	Output Speed Signal	24	0.5	GY / BU	6358	III	—

X175 Engine Wiring Harness to Automatic Transmission Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
25	0.5	YE / GN	4170	II	—	Transmission Output Shaft Speed Sensor Circuit 9V Reference	25	0.5	YE / GN	4170	III	—
26	0.5	GN / RD	6353	II	—	Input Speed Signal	26	0.5	GN / RD	6353	III	—
27	0.5	YE / BU	4171	II	—	Transmission Input Shaft Speed Sensor Circuit 9V Reference	27	0.5	YE / BU	4171	III	—
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
29	0.5	WH / RD	480	II	—	Engine Control Vehicle Sensors 5 Volt Reference 1	29	0.5	WH / RD	480	III	—
30	0.5	BK / GY	626	II	—	Engine Control Vehicle Sensors Low Reference 1	30	0.5	BK / GY	626	III	—
31	—	—	—	—	—	Not Occupied	31	—	—	—	—	—
32	0.5	GN / VT	4510	II	—	Transmission Intermediate Speed Signal	32	0.5	GN / VT	4510	III	—
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
34	0.5	GY / RD	10817	II	—	Lubricant Circuit Pressure Sensor 5 Volt Reference	34	0.5	GY / RD	10817	III	—
35	0.5	BU / BK	10819	II	—	Lubricant Circuit Pressure Sensor Low Reference	35	0.5	BU / BK	10819	III	—
36	0.5	GN / YE	10816	II	—	Lubricant Circuit Pressure Sensor Signal	36	0.5	GN / YE	10816	III	—

X176 Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness



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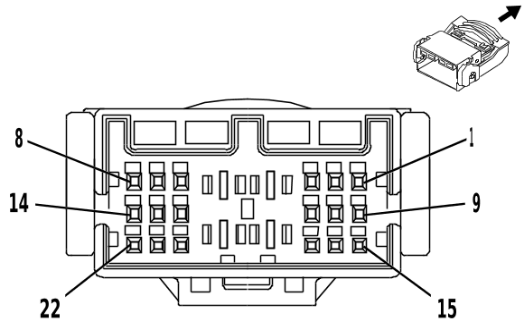


3977770

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 1897543-1

Service Connector: Service by Harness - See Part Catalog

Description: 22-Way F 0.64 Micro-Quadlock, 2.8 Micro-Power Series(NA)

Connector Part Information

Harness Type: Automatic Transmission Wiring Harness

OEM Connector: 1897540-1

Service Connector: Service by Harness - See Part Catalog

Description: 22-Way M 0.64 Micro-Quadlock, 2.8 Micro-Power Series(NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	No Tool Required	No Tool Required

X176 Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	GN / WH	6380	I	—	Torque Converter Clutch Enable Solenoid Valve A Control	1	—	GN / WH	6380	II	—
2	—	BU / WH	3338	I	—	Transmission Internal Mode Switch Mode Control X	2	—	BU / WH	3338	II	—
3	—	GY / RD	10817	I	—	Lubricant Circuit Pressure Sensor 5 Volt Reference	3	—	GY / RD	10817	II	—
4	—	GN / GY	6387	I	—	Transmission High Side Driver 1 Control	4	—	GN / GY	6387	II	—
5	— —	WH / RD RD / GN	480 840	I I	— —	Engine Control Vehicle Sensors 5 Volt Reference 1 Battery Positive Voltage	5	— —	WH / RD RD / GN	480 840	II II	— —
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

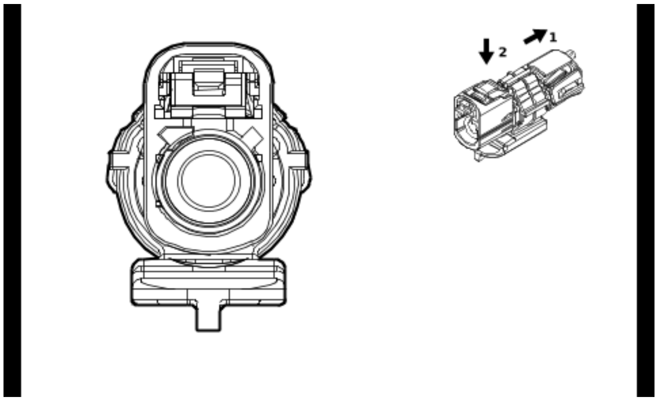
X176 Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	—	WH / BU	4507	I	—	Transmission Clutch H Control	7	—	WH / BU	4507	II	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—
9	—	WH	4508	I	—	Transmission Clutch G Control	9	—	WH	4508	II	—
10	—	YE / BN	6210	I	—	Torque Converter Clutch Enable Solenoid Valve B Control	10	—	YE / BN	6210	II	—
11	—	GN / YE	3337	I	—	Transmission Internal Mode Switch Mode Control Y	11	—	GN / YE	3337	II	—
12	—	BU / BK	10819	I	—	Lubricant Circuit Pressure Sensor Low Reference	12	—	BU / BK	10819	II	—
13	—	GY	6402	I	—	Clutch Solenoid Valve C Control	13	—	GY	6402	II	—
14	—	GN / WH	1530	I	—	Transmission Line Pressure Control Solenoid Valve Control	14	—	GN / WH	1530	II	—
15	—	BN / WH	585	I	—	Transmission Fluid Temperature Sensor Signal	15	—	BN / WH	585	II	—
16	—	BK / BN	586	I	—	Transmission Fluid Temperature Sensor Low Reference	16	—	BK / BN	586	II	—
17	—	GN / YE	10816	I	—	Lubricant Circuit Pressure Sensor Signal	17	—	GN / YE	10816	II	—
18	—	GY / BN	6388	I	—	Transmission High Side Driver 2 Control	18	—	GY / BN	6388	II	—
19	— —	BK BK	450 6250	I I	— —	Ground Transmission Ground	19	—	BK	6250	II	—
20	—	BK / GY	626	I	—	Engine Control Vehicle Sensors Low Reference 1	20	—	BK / GY	626	II	—
21	—	BN	6400	I	—	Clutch Solenoid Valve A Control	21	—	BN	6400	II	—

X176 Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
22	—	BU	6401	I	—	Clutch Solenoid Valve B Control	22	—	BU	6401	II	—

X195 Forward Lamp Wiring Harness to Front View Camera Switch Wiring Harness



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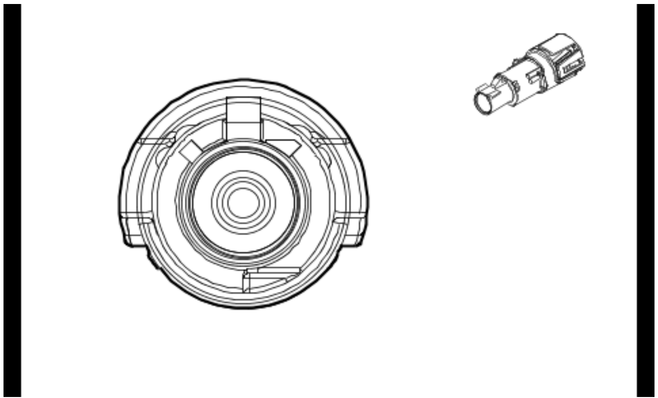

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Connector Part Information

Harness Type: Forward Lamp Wiring Harness COAX

OEM Connector: 35187047

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type, Sealed(BK)

Connector Part Information

Harness Type: Front View Camera Switch Wiring Harness COAX

OEM Connector: 13516806

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way M Coax Type, Sealed(BK)

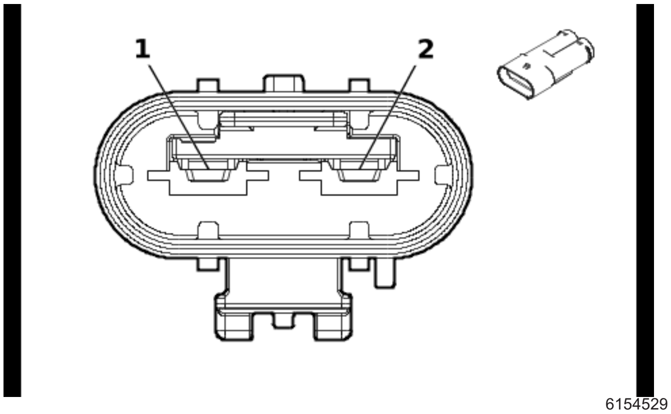
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X195 Forward Lamp Wiring Harness to Front View Camera Switch Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	Front Vision Camera 1 Coaxial Video Signal	—	—	Coax Cable	—	I	—

X198 Power Steering Wiring Harness to Battery Negative Cable Extension Cable



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Connector Part Information

Harness Type: Power Steering Wiring Harness
OEM Connector: 13544729
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 12 MAS Series(BK)

Connector Part Information

Harness Type: Battery Negative Cable Extension Cable
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M (BK)

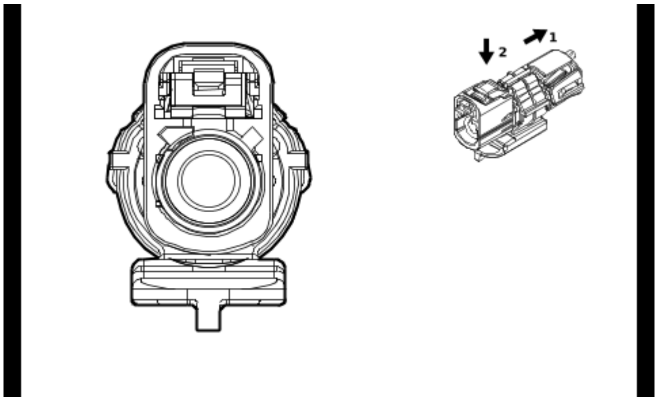
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	No Tool Required	No Tool Required

X198 Power Steering Wiring Harness to Battery Negative Cable Extension Cable

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	16	RD / VT	542	I	—	Battery Positive Voltage	1	16	RD / VT	542	II	—
2	16	BK	250	I	—	Ground	2	16	BK	250	II	—

X199 Chassis Wiring Harness to Body Wiring Harness



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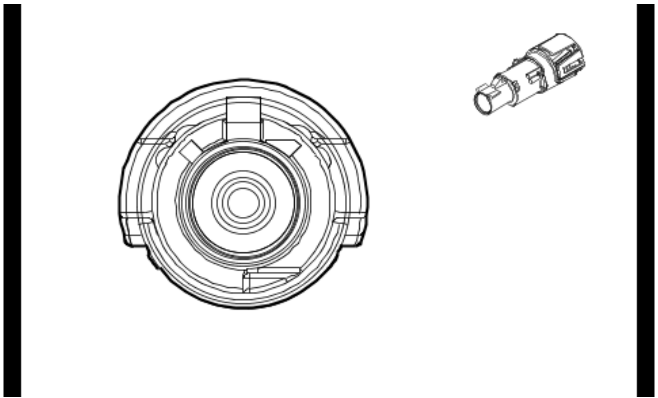


5518522

Connector Part Information

Harness Type: Chassis Wiring Harness COAX
OEM Connector: 13529796
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type, Sealed(BK)

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13516806
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way M Coax Type, Sealed(BK)

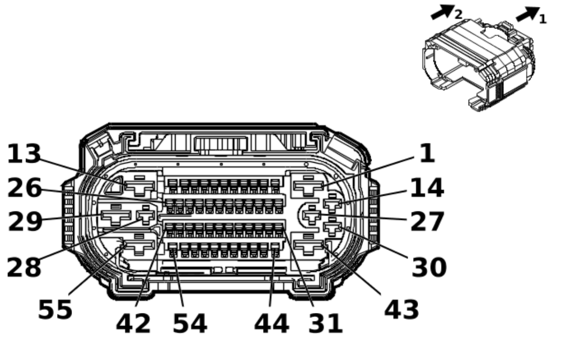
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X199 Chassis Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	Rear Vision Camera Coaxial Video Signal	—	—	Coax Cable	—	I	—

X201 Engine Wiring Harness to Body Wiring Harness



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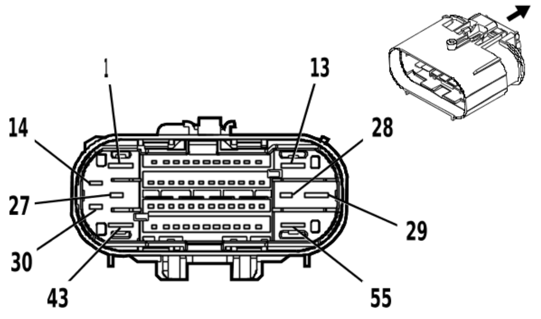


4994369

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 35016653
Service Connector: 19371184
Description: 55-Way F 1.2 OCS, 2.8, 6.3 CTS Series, Sealed(GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35205174
Service Connector: 84727363
Description: 55-Way M 1.2 OCS, 2.8, 6.3 CTS Series, Sealed(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19332901	J-35616-35 (VT)	J-38125-212
II	19370818	J-35616-12 (BU)	J-38125-215A
III	84867140	J-35616-13 (BU)	J-38125-215A
IV	84992391	J-35616-5 (PU)	J-38125-215A

X201 Engine Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BK	5133	II	—	Left Rear Door Dead Lock Lock Signal	2	0.75	BK	2201	III	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	0.5	GN / VT	4621	II	—	Engine Control Module LIN Bus 1	4	0.5	GN / VT	4621	III	—
5	0.5	WH	4055	II	—	Private Serial Data Powertrain CAN Bus [+] Serial Data	5	0.5	WH	4055	III	—
6	0.5	BU / GY	4054	II	—	Private Serial Data Powertrain CAN Bus [-] Serial Data	6	0.5	BU / GY	4054	III	—
7	0.5	BU / BK	4977	II	—	AUTOSAR CAN Bus [+] 3 Serial Data	7	0.5	BU / BK	4977	III	—

X201 Engine Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.5	WH	4976	II	—	AUTOSAR CAN Bus [-] 3 Serial Data	8	0.5	WH	4976	III	—
9 - 11	—	—	—	—	—	Not Occupied	9 - 11	—	—	—	—	—
12	0.75	BK	5133	II	—	Left Rear Door Dead Lock Lock Signal	12	0.75	BK	2202	III	—
13 - 14	—	—	—	—	—	Not Occupied	13 - 14	—	—	—	—	—
15	0.5	WH / RD	480	II	—	Engine Control Vehicle Sensors 5 Volt Reference 1	15	0.5	WH / RD	480	III	—
16	0.5	WH / GN	5380	II	—	Brake Position Sensor Signal	16	0.5	WH / GN	5380	III	—
17	0.5	BK / GY	626	II	—	Engine Control Vehicle Sensors Low Reference 1	17	0.5	BK / GY	626	III	—
18	0.5	BK / GY	626	II	—	Engine Control Vehicle Sensors Low Reference 1	18	0.5	BK / GY	626	III	—
19	0.5	BU / GY	636	II	—	Ambient Air Temperature Sensor Signal	19	0.5	BU / GY	636	III	—
20	0.5	YE / BK	625	II	—	Starter Enable Relay Control	20	0.5	YE / BK	625	III	—
21	0.5	VT / GN	4320	II	—	Powertrain Sensor Bus Enable	21	0.5	VT / GN	4320	III	—
22	0.5	VT / BK	2139	II	—	Run/Crank Ignition 1 Voltage	22	0.5	VT / BK	2139	III	—
23	—	—	—	—	—	Not Occupied	23	—	—	—	—	—
24	0.5	WH / RD	1164	II	—	Accelerator Pedal Position 5V Reference 1	24	0.5	WH / RD	1164	III	—
25	0.5	YE / WH	1161	II	—	Accelerator Pedal Position Signal 1	25	0.5	YE / WH	1161	III	—
26	0.5	BK / BU	1271	II	—	Accelerator Pedal Position Low Reference 1	26	0.5	BK / BU	1271	III	—
27	—	—	—	—	—	Not Occupied	27	—	—	—	—	—
28	0.75	RD / GN	1840	I	—	Battery Positive Voltage	28	1.5	RD / GN	1840	IV	—

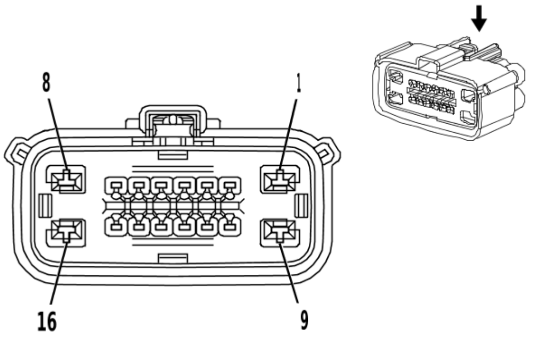
X201 Engine Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
29 - 31	—	—	—	—	—	Not Occupied	29 - 31	—	—	—	—	—
32	0.5	BU / BN	7573	II	—	Air Conditioning Compressor Solenoid Valve Control	32	0.5	BU / BN	7573	III	—
33	0.5	BU / YE	7574	II	—	Air Conditioning Compressor Solenoid Valve Control	33	0.5	BU / YE	7574	III	—
34	—	—	—	—	—	Not Occupied	34	—	—	—	—	—
35	0.5	YE	4063	II	—	Hood Status A Signal	35	0.5	YE	4063	III	—
36	—	—	—	—	—	Not Occupied	36	—	—	—	—	—
37	0.5	VT / GY	139	II	—	Run/Crank Ignition 1 Voltage	37	0.5	VT / BK	739	III	—
38 - 39	—	—	—	—	—	Not Occupied	38 - 39	—	—	—	—	—
40	0.5	BN / RD	1274	II	—	Accelerator Pedal Position 5V Reference 2	40	0.5	BN / RD	1274	III	—
41	0.5	GN / WH	1162	II	—	Accelerator Pedal Position Signal 2	41	0.5	GN / WH	1162	III	—
42	0.5	BK / VT	1272	II	—	Accelerator Pedal Position Low Reference 2	42	0.5	BK / VT	1272	III	—
43	—	—	—	—	—	Not Occupied	43	—	—	—	—	—
44	0.75	BK	5133	II	—	Left Rear Door Dead Lock Lock Signal	44	0.75	BK	2204	III	—
45 - 46	—	—	—	—	—	Not Occupied	45 - 46	—	—	—	—	—
47	0.5	BU / RD	460	II	—	Engine Control Sensors 5 Volt Reference 1	47	0.5	BU / RD	460	III	—
48	0.5	BK / YE	548	II	—	Engine Control Sensors Low Reference 1	48	0.5	BK / YE	548	III	—
49	0.5	YE / WH	3200	II	—	Throttle Inlet Absolute Pressure Sensor Signal	49	0.5	YE / WH	3200	III	—

X201 Engine Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
50 - 53	—	—	—	—	—	Not Occupied	50 - 53	—	—	—	—	—
54	0.75	BK	5133	II	—	Left Rear Door Dead Lock Lock Signal	54	0.75	BK	2205	III	—
55	—	—	—	—	—	Not Occupied	55	—	—	—	—	—

X204 Engine Wiring Harness to Chassis Wiring Harness



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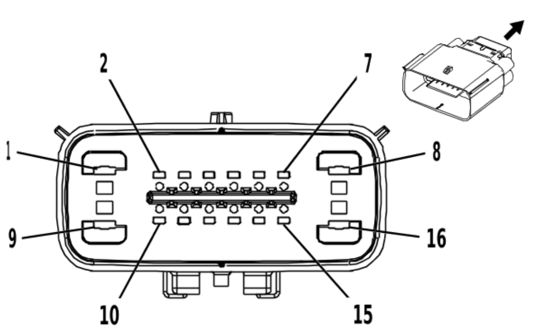


2373686

Connector Part Information

Harness Type: Engine Wiring Harness
OEM Connector: 34985-1601
Service Connector: 19352906
Description: 16-Way F 1.5, 2.8 MX Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34986-1601
Service Connector: 19331031
Description: 16-Way M 1.5, 2.8 MX Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13576377	J-35616-35 (VT)	J-38125-12A
II	85528055	J-35616-2A (GY)	J-38125-217
III	19366658	J-35616-5 (PU)	J-38125-12A
IV	86800300	J-35616-3 (GY)	J-38125-217

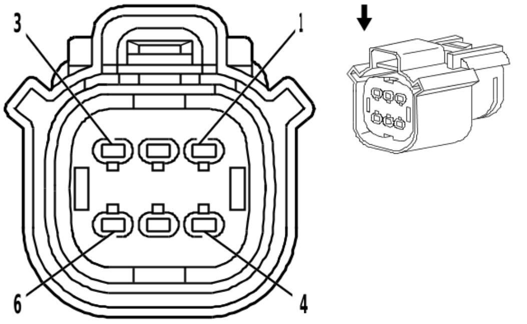
X204 Engine Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	3	RD / WH	2242	I	—	Battery Positive Voltage	1	3	RD / WH	2242	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.5	GY / BK	1570	II	—	Front Axle Actuator Control	3	0.5	GY / BK	1570	IV	—
4	0.5	YE / WH	1695	II	—	4WD Locked Range Indicator Control	4	0.5	YE / WH	1695	IV	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.5	VT / GN	4320	II	—	Powertrain Sensor Bus Enable	6	0.5	VT / GN	4320	IV	—
7	0.5	GN / GY	465	II	—	Fuel Pump Primary Relay Control	7	0.5	GN / GY	465	IV	—
8 - 10	—	—	—	—	—	Not Occupied	8 - 10	—	—	—	—	—
11	0.5	GN / VT	4621	II	—	Engine Control Module LIN Bus 1	11	0.5	GN / VT	4621	IV	—

X204 Engine Wiring Harness to Chassis Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
12	0.5	BU / YE	4979	II	—	AUTOSAR CAN Bus [+] 2 Serial Data	12	0.5	BU / YE	4979	IV	—
13	0.5	WH	4978	II	—	AUTOSAR CAN Bus [-] 2 Serial Data	13	0.5	WH	4978	IV	—
14	0.5	BU / BK	4977	II	—	AUTOSAR CAN Bus [+] 3 Serial Data	14	0.5	BU / BK	4977	IV	—
15	0.5	WH	4976	II	—	AUTOSAR CAN Bus [-] 3 Serial Data	15	0.5	WH	4976	IV	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—

X250A Radiator Extension Harness to Forward Lamp Wiring Harness



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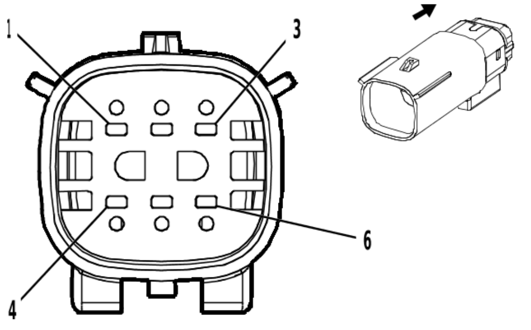


1986159

Connector Part Information

Harness Type: Radiator Extension Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 33482-3640
Service Connector: 19370462
Description: 6-Way M 1.5 MX Series, Sealed(BK)

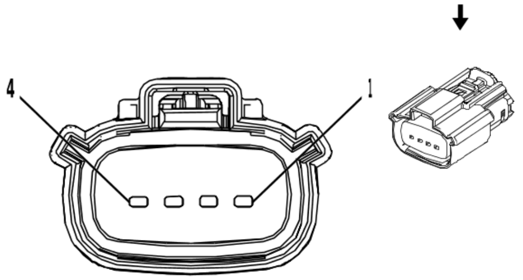
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X250A Radiator Extension Harness to Forward Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN / VT	4621	I	—	Engine Control Module LIN Bus 1	1	0.5	GN / VT	4621	II	—
2	0.5	BK	150	I	—	Ground	2	0.5	BK	150	II	—
3	0.5	VT / BU	5705	I	—	Powertrain Main Relay Control	3	0.5	VT / BU	5705	II	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	BU / GY	636	I	—	Ambient Air Temperature Sensor Signal	5	0.5	BU / GY	636	II	—
6	0.5	BK / GY	626	I	—	Engine Control Vehicle Sensors Low Reference 1	6	0.5	BK / GY	626	II	—

X250J Windshield Washer Pump Extension Wiring Harness to Forward Lamp Wiring Harness



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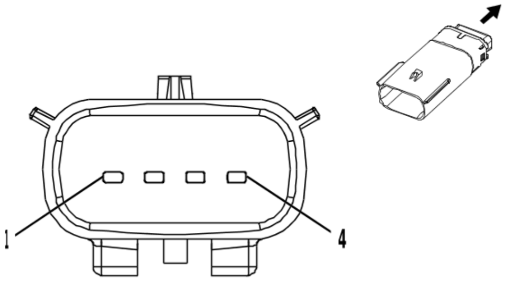


2917338

Connector Part Information

Harness Type: Windshield Washer Pump Extension Wiring Harness

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F

Connector Part Information

Harness Type: Forward Lamp Wiring Harness

OEM Connector: 33481-4401

Service Connector: 19330690

Description: 4-Way M 1.5 Series, Sealed(BK)

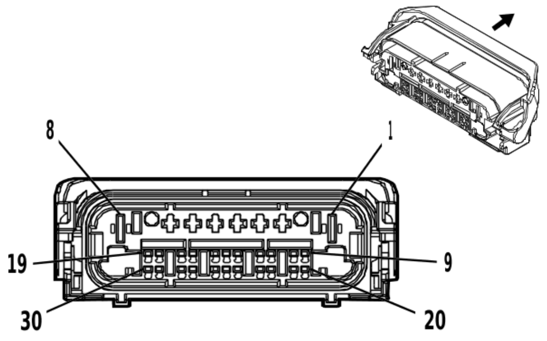
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X250J Windshield Washer Pump Extension Wiring Harness to Forward Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75 0.75	GY / VT BK	228 2250	I I	UXA - UXA	Windshield Washer Pump Control Ground	1	0.75 0.75	GY / VT BK	228 2250	II II	UXA - UXA
2	0.75 0.75	BU / VT GY / VT	392 228	I I	UXA - UXA	Rear Window Washer Pump Control Windshield Washer Pump Control	2	0.75 0.75	BU / VT GY / VT	392 228	II II	UXA - UXA
3	0.5	VT	185	I	—	Low Washer Fluid Indicator Control	3	0.5	VT	185	II	—
4	0.5	BK	2250	I	—	Ground	4	0.5	BK	2250	II	—

X250R Body Wiring Harness to Forward Lamp Wiring Harness



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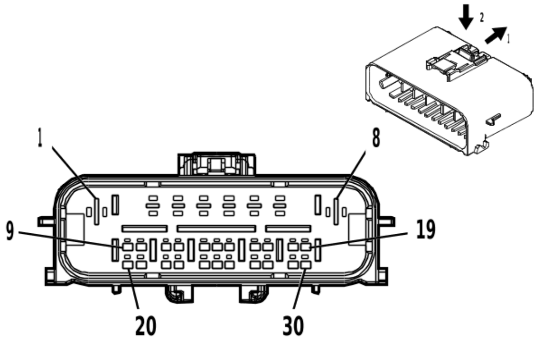


4817393

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 2301462-1
Service Connector: 19368311
Description: 30-Way F 1.2 MCON, 2.8, 6.3 MCP Series, Sealed(BK)

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 2401461-1
Service Connector: 19371177
Description: 30-Way M 1.2 MCON, 2.8, 6.3 MCP Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19331733	J-35616-12 (BU)	J-38125-215A
II	19371214	J-35616-4A (PU)	J-38125-215A
III	85158596	J-35616-40 (BU)	EL-38125-560A
IV	13575376	J-35616-32 (OG)	J-38125-36
V	13578827	J-35616-5 (PU)	J-38125-36
VI	19330704	J-35616-13 (BU)	J-38125-215A

X250R Body Wiring Harness to Forward Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	GY / VT	228	III	—	Windshield Washer Pump Control	1	0.75	GY / VT	228	IV	—
2	0.75	BU / VT	392	II	—	Rear Window Washer Pump Control	2	0.75	BU / VT	392	V	—
3	0.75	RD / YE	740	II	—	Battery Positive Voltage	3	0.75	RD / YE	740	V	—
4	1	YE	312	II	—	Right Headlamp Low Beam Control	4	0.5	YE	312	V	—
5	0.75	WH	311	II	—	Right Headlamp High Beam Control	5	0.5	WH	311	V	—
6	0.35	BU / GN	1253	II	—	Right Front Park Lamp Control	6	0.5	BU / GN	1253	V	—

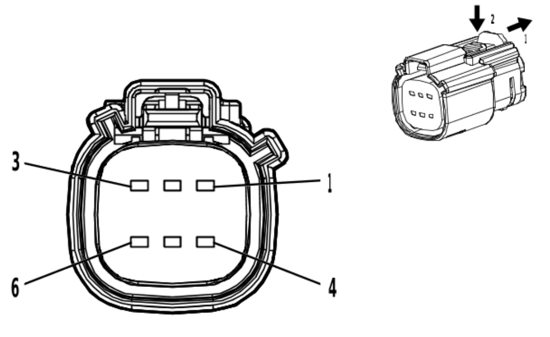
X250R Body Wiring Harness to Forward Lamp Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	GN / VT	1315	II	—	Right Front Turn Signal Lamp Control	7	0.5	GN / VT	1315	V	—
8	0.75	BN / GY	29	III	—	Horn Control	8	0.75	BN / GY	29	IV	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.35	VT	185	I	—	Low Washer Fluid Indicator Control	10	0.5	VT	185	VI	—
11	0.5	BN / GN	4246	I	—	Identification Lamp Control	11	0.5	BN / GN	4246	VI	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—
13	0.5	GN / VT	4621	I	—	Engine Control Module LIN Bus 1	13	0.5	GN / VT	4621	VI	—
14	—	—	—	—	—	Not Occupied	14	—	—	—	—	—
15	0.5	VT / BU	5705	I	—	Powertrain Main Relay Control	15	0.5	VT / BU	5705	VI	—
16	0.5	VT	1203	I	—	Right Park Lamp Control 2	16	—	—	—	—	—
17	0.5	BU / BN	7539	I	—	Right Front DRL Control	17	0.5	BU / BN	7539	VI	—
18	0.35	WH / YE	7545	I	—	Right Front Turn Signal Lamp Feedback Signal	18	0.5	WH / YE	7545	VI	—
19	—	—	—	—	—	Not Occupied	19	—	—	—	—	—
20	0.5	BU / GY	636	I	—	Ambient Air Temperature Sensor Signal	20	0.5	BU / GY	636	VI	—
21	0.5	BK / GY	626	I	—	Engine Control Vehicle Sensors Low Reference 1	21	0.5	BK / GY	626	VI	—
22	0.35	BN / GN	4064	I	—	Hood Status B Signal	22	0.5	BN / GN	4064	VI	—
23	0.5	YE	4063	I	—	Hood Status A Signal	23	0.5	YE	4063	VI	—
24	0.5	BU / RD	460	I	—	Engine Control Sensors 5 Volt Reference 1	24	0.5	BU / RD	460	VI	—
25	0.5	BK / YE	548	I	—	Engine Control Sensors Low Reference 1	25	0.5	BK / YE	548	VI	—
26	0.5	YE / WH	3200	I	—	Throttle Inlet Absolute Pressure Sensor Signal	26	0.5	YE / WH	3200	VI	—

X250R Body Wiring Harness to Forward Lamp Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
27	0.5	BN / GY	5061	I	—	Left Front Fog Lamp Control	27	0.5	BN / GY	5061	VI	—
28	—	—	—	—	—	Not Occupied	28	—	—	—	—	—
29	0.5	OG / GN	1409	I	—	Right Front Impact Discriminating Sensor Signal	29	0.5	OG / GN	1409	VI	—
30	0.5	BK / OG	5600	I	—	Right Front Impact Discriminating Sensor Low Reference	30	0.5	BK / OG	5600	VI	—

X260 Front Object Alarm Sensor Wiring Harness to Forward Lamp Wiring Harness



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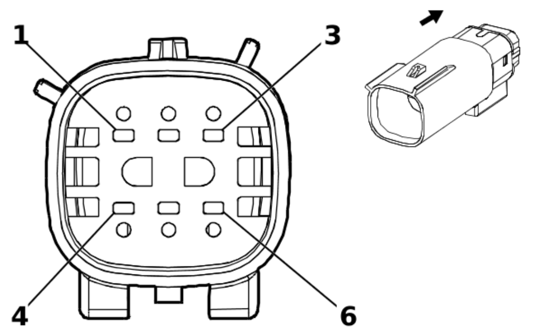


5318944

Connector Part Information

Harness Type: Front Object Alarm Sensor Wiring Harness
OEM Connector: 33472-0670
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.5 MX Series, Sealed(GY)

Connector Part Information

Harness Type: Forward Lamp Wiring Harness
OEM Connector: 33482-3628
Service Connector: 84856300
Description: 6-Way M 1.5 MX Series, Sealed(GY)

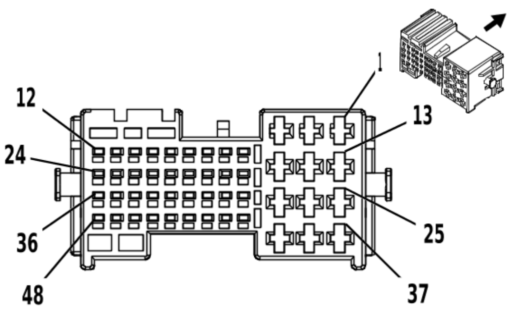
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-3 (GY)	No Tool Required

X260 Front Object Alarm Sensor Wiring Harness to Forward Lamp Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BN / GY	5061	I	—	Left Front Fog Lamp Control	1	0.5	BN / GY	5061	II	—
2	0.5	BK	550	I	—	Ground	2	0.75	BK	550	II	—
3 - 6	—	—	—	—	—	Not Occupied	3 - 6	—	—	—	—	—

X300 Body Wiring Harness to Instrument Panel Wiring Harness



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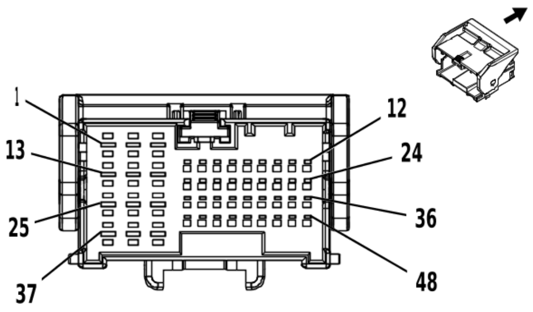


3277901

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 2109452-2
Service Connector: 19329739
Description: 48-Way F 1.2 MCON, 2.8 MCP Series(BK)

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 5-2109455-2
Service Connector: 19329740
Description: 48-Way M 1.2 MCON, 2.8 MCP Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19329758	J-35616-12 (BU)	J-38125-215A
II	87814662	J-35616-4A (PU)	J-38125-557
III	13575574	J-35616-5 (PU)	J-38125-215A
IV	86509266	J-35616-13 (BU)	J-38125-215A

X300 Body Wiring Harness to Instrument Panel Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1	RD / BN	1140	II	—	Battery Positive Voltage	1	1	RD / BN	1140	III	—
2	1	RD / BU	1240	II	—	Battery Positive Voltage	2	1	RD / BU	1240	III	—
3	0.35	RD / VT	3340	II	—	Battery Positive Voltage	3	0.35	RD / VT	3340	III	—
4	0.35	GN / BU	6133	I	—	Body Control Module LIN Bus 2	4	0.35	GN / BU	6133	IV	—
5	0.35	BU / WH	4985	I	—	AUTOSAR CAN Bus [+] 5 Serial Data	5	0.35	BU / WH	4985	IV	—
6	0.35	BU / YE	4984	I	—	AUTOSAR CAN Bus [-] 5 Serial Data	6	0.35	BU / YE	4984	IV	—
7	0.35	BU / WH	4985	I	—	AUTOSAR CAN Bus [+] 5 Serial Data	7	0.35	BU / WH	4985	IV	—
8	0.35	BU / YE	4984	I	—	AUTOSAR CAN Bus [-] 5 Serial Data	8	0.35	BU / YE	4984	IV	—
9	0.35	GN / YE	2731	I	—	Brake System Control Module LIN Bus 1	9	0.35	GN / YE	2731	IV	—

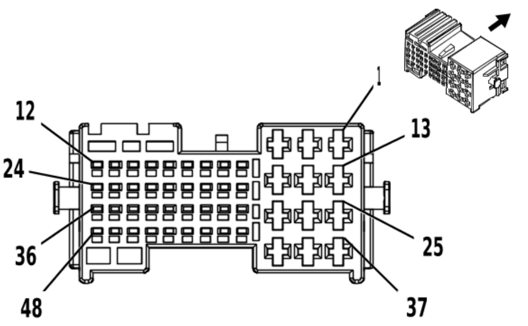
X300 Body Wiring Harness to Instrument Panel Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	0.5	GN / BU	2733	I	—	Brake System Control Module LIN Bus 2	10	0.35	GN / BU	2733	IV	—
11	0.35 0.5	BU / VT BU / VT	4101 4101	I I	A45 - A45	AUTOSAR CAN Bus [+] 4 Serial Data AUTOSAR CAN Bus [+] 4 Serial Data	11	0.35	BU / VT	4101	IV	—
12	0.35 0.5	WH WH	4100 4100	I I	A45 - A45	AUTOSAR CAN Bus [-] 4 Serial Data AUTOSAR CAN Bus [-] 4 Serial Data	12	0.35	WH	4100	IV	—
13	1.5	RD / WH	1340	II	—	Battery Positive Voltage	13	1.5	RD / WH	1340	III	—
14	1.5	RD / GN	1540	II	—	Battery Positive Voltage	14	1.5	RD / GN	1540	III	—
15	0.75	RD / WH	3440	II	—	Battery Positive Voltage	15	0.75	RD / WH	3440	III	—
16 - 17	—	—	—	—	—	Not Occupied	16 - 17	—	—	—	—	—
18	0.35	BU	4987	I	—	AUTOSAR CAN Bus [+] 1 Serial Data	18	0.35	BU	4987	IV	—
19	0.35	WH	4986	I	—	AUTOSAR CAN Bus [-] 1 Serial Data	19	0.35	WH	4986	IV	—
20	0.35	GY	1715	I	—	Windshield Wiper Switch High Signal	20	0.35	GY	1715	IV	—
21	0.5	VT / OG	3482	I	—	Driver Seat Belt Anchor Pretensioner Low Control	21	0.5	VT / OG	3482	IV	—
22	0.5	OG / YE	3481	I	—	Driver Seat Belt Anchor Pretensioner High Control	22	0.5	OG / YE	3481	IV	—
23	0.5	GY / OG	3480	I	—	Passenger Seat Belt Anchor Pretensioner Low Control	23	0.5	GY / OG	3480	IV	—
24	0.5	OG / BN	3479	I	—	Passenger Seat Belt Anchor Pretensioner High Control	24	0.5	OG / BN	3479	IV	—
25	0.75	GN / BK	116	II	—	Left Rear Speaker [-] Control	25	0.75	GN / BK	116	III	—
26	0.75	GN	199	II	—	Left Rear Speaker [+] Control	26	0.75	GN	199	III	—

X300 Body Wiring Harness to Instrument Panel Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
27 - 28	—	—	—	—	—	Not Occupied	27 - 28	—	—	—	—	—
29	0.5	OG / YE	354	I	—	Left Front Impact Discriminating Sensor Signal	29	0.5	OG / YE	354	IV	—
30	0.5	BK / OG	5045	I	—	Left Front Impact Discriminating Sensor Low Reference	30	0.5	BK / OG	5045	IV	—
31	0.5	OG / GN	1409	I	—	Right Front Impact Discriminating Sensor Signal	31	0.5	OG / GN	1409	IV	—
32	0.5	BK / OG	5600	I	—	Right Front Impact Discriminating Sensor Low Reference	32	0.5	BK / OG	5600	IV	—
33	0.5	VT / OG	3478	I	—	Driver Seat Belt Retractor Pretensioner Low Control	33	0.5	VT / OG	3478	IV	—
34	0.5	OG / WH	3477	I	—	Driver Seat Belt Retractor Pretensioner High Control	34	0.5	OG / WH	3477	IV	—
35	0.5	WH / OG	3476	I	—	Passenger Seat Belt Retractor Pretensioner Low Control	35	0.5	WH / OG	3476	IV	—
36	0.5	OG / GN	3475	I	—	Passenger Seat Belt Retractor Pretensioner High Control	36	0.5	OG / GN	3475	IV	—
37 - 44	—	—	—	—	—	Not Occupied	37 - 44	—	—	—	—	—
45	0.35	GY / GN	328	I	—	Interior Lamp Defeat Switch Signal	45	0.35	GY / GN	328	IV	—
46	0.35	GY	156	I	—	Courtesy Lamp Switch Signal	46	0.35	GY	156	IV	—
47	0.5	GY	157	I	—	Interior Lamp Control	47	0.5	GY	157	IV	—
48	0.5	WH / BN	6815	I	—	Inadvertent Load Control	48	0.5	WH / BN	6815	IV	—

X301 Body Wiring Harness to Instrument Panel Wiring Harness



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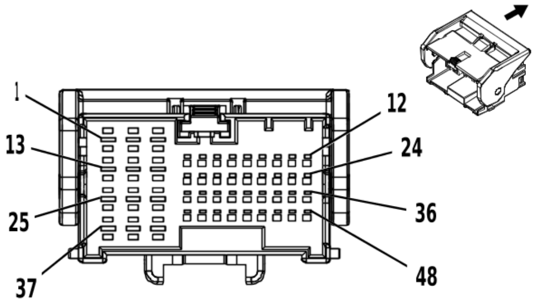


3924404

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 1-2109452-3
Service Connector: 19329737
Description: 48-Way F 1.2 MCON, 2.8 MCP Series(GY)

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 1-2109455-3
Service Connector: 19329738
Description: 48-Way M 1.2 MCON, 2.8 MCP Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19300446	J-35616-12 (BU)	J-38125-12A
II	87814662	J-35616-4A (PU)	J-38125-557
III	13575574	J-35616-5 (PU)	J-38125-215A
IV	86509266	J-35616-13 (BU)	J-38125-215A

X301 Body Wiring Harness to Instrument Panel Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	BU	47	II	—	Trailer Auxiliary Control	1	2.5	BU	47	III	—
2	2.5	RD / BN	4142	II	—	Primary Fused Battery Positive Voltage	2	2.5	RD / BN	4142	III	—
3	0.5	RD / VT	1940	II	—	Battery Positive Voltage	3	0.5	RD / VT	1940	III	—
4	0.5	YE	6817	I	—	LED Backlight Dimming Control 1	4	0.5	YE	6817	IV	—
5	0.5	VT / GY	7117	I	—	Front Axle Differential Lock Indicator Control	5	0.5	VT / GY	7117	IV	—
6	0.5	YE	7115	I	—	Rear Axle Differential Lock Indicator Control	6	0.5	YE	7115	IV	—
7	0.5	YE / GN	7122	I	—	Axle Differential Lock Switch Signal	7	0.5	YE / GN	7122	IV	—

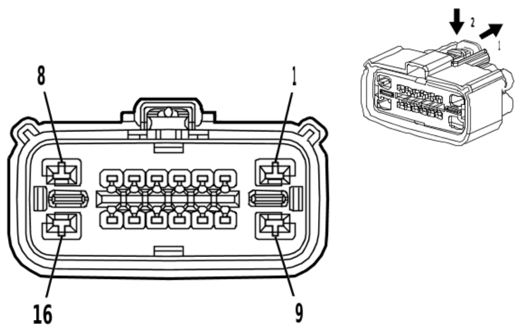
X301 Body Wiring Harness to Instrument Panel Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8 - 12	—	—	—	—	—	Not Occupied	8 - 12	—	—	—	—	—
13	0.35	WH / BK	4769	II	—	Emergency Call Backup Speaker [-] Control	13	0.5	WH / BK	4769	III	—
14	0.35	GY / GN	4770	II	—	Emergency Call Backup Speaker [+] Control	14	0.5	GY / GN	4770	III	—
15 - 20	—	—	—	—	—	Not Occupied	15 - 20	—	—	—	—	—
21	0.35	BU / YE	7176	I	—	All Windows Open Switch Signal	21	0.35	BU / YE	7176	IV	—
22	0.35	GN / WH	24	I	—	Backup Lamp Control	22	0.35	GN / WH	24	IV	—
23 - 24	—	—	—	—	—	Not Occupied	23 - 24	—	—	—	—	—
25	0.75 0.5	BN / BU BU / BN	118 1957	II II	UQ3 UQA	Left Front Speaker [-] Control 1 Left Front Midrange Speaker [-] Control	25	0.75 0.5	BN / BU BU / BN	118 1957	III III	UQ3 UQA
26	0.75 0.5	BU BU / VT	201 1857	II II	UQ3 UQA	Left Front Speaker 1 [+] Control Left Front Midrange Speaker [+] Control	26	0.75 0.5	BU BU / VT	201 1857	III III	UQ3 UQA
27	—	—	—	—	—	Not Occupied	27	—	—	—	—	—
28	0.5	VT / BK	739	I	—	Run/Crank Ignition 1 Voltage	28	0.5	VT / BK	739	IV	—
29	0.5	VT / WH	1139	I	—	Run/Crank Ignition 1 Voltage	29	0.5	VT / WH	1139	IV	—
30 - 34	—	—	—	—	—	Not Occupied	30 - 34	—	—	—	—	—
35	0.5	VT / RD	4049	I	—	AC Power Outlet Sensor High Reference	35	0.5	VT / RD	4049	IV	—
36	0.5	BU / BN	6807	I	—	DC/AC Inverter Control	36	0.5	BU / BN	6807	IV	—
37 - 40	—	—	—	—	—	Not Occupied	37 - 40	—	—	—	—	—
41	0.35	RD / BU	3240	I	—	Battery Positive Voltage	41	0.5	RD / BU	3240	IV	—
42	0.35	RD / VT	4040	I	—	Battery Positive Voltage	42	0.35	RD / VT	4040	IV	—

X301 Body Wiring Harness to Instrument Panel Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
43	0.35	BU	2307	I	—	Passenger Air Bag On Indicator Control	43	0.35	BU	2307	IV	—
44	0.35	GN	2308	I	—	Passenger Air Bag Off Indicator Control	44	0.35	GN	2308	IV	—
45	0.35 0.35	GN VT / WH	3118 5234	I I	C91 - C91	Roof Rail Air Bag Disable Indicator Control Passenger Seat Belt Indicator Control	45	0.35 0.35	GN VT / WH	3118 5234	IV IV	C91 - C91
46	0.75	Bare	10116	I	—	AC Outlet Low Reference	46	0.75	Bare	10116	IV	—
47	0.75	BK	10117	I	—	AC Outlet Phase A Control	47	0.75	BK	10117	IV	—
48	0.75	RD	10118	I	—	AC Outlet Phase B Control	48	0.75	RD	10118	IV	—

X302A Front Seat Wiring Harness - Driver to Body Wiring Harness



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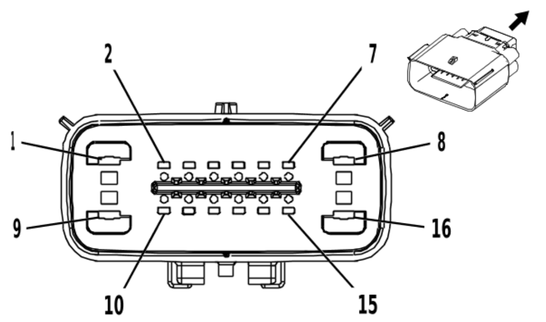


2373686

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 34985-2161
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5, 2.8 MX Series, Sealed(YE)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 34986-1605
Service Connector: 19331031
Description: 16-Way M 1.5, 2.8 MX Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	Not required	J-35616-35 (VT)	No Tool Required
IV	Not required	No Tool Required	No Tool Required
V	19366658	J-35616-5 (PU)	J-38125-12A
VI	86800300	J-35616-3 (GY)	J-38125-217

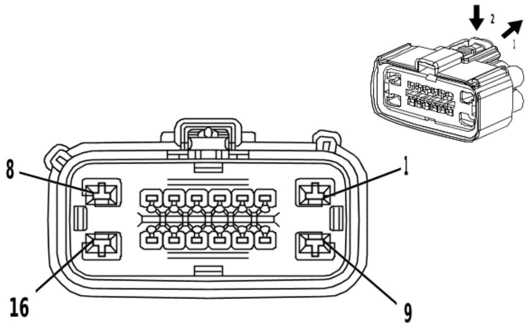
X302A Front Seat Wiring Harness - Driver to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	BK	3750	III	—	Ground	1	2.5	BK	3750	V	—
2	0.5	OG / BU	4962	IV	—	Driver Seat Back Air Bag High Control	2	0.5	OG / BU	4962	VI	—
3	0.5	BK / OG	4963	IV	—	Driver Seat Back Air Bag Low Control	3	0.5	BK / OG	4963	VI	—
4	0.5	BK / OG	1363	I	—	Driver Seat Belt Switch Low Reference	4	0.5	BK / OG	1363	VI	—
5	0.5	OG / BN	238	I	—	Driver Seat Belt Switch Signal	5	0.5	OG / BN	238	VI	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—
8	2.5 2.5	RD / BN RD / GY	3640 3540	III III	A2X/ A45 A2X- A45	Battery Positive Voltage Battery Positive Voltage	8	2.5	RD / GY	3540	V	—
9	0.5	RD / VT	3340	III	—	Battery Positive Voltage	9	0.35	RD / VT	3340	V	—

X302A Front Seat Wiring Harness - Driver to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	—	—	—	—	—	Not Occupied	10	—	—	—	—	—
11	0.5	BU	2425	I	—	Driver Seat Back Heating Temperature Sensor Signal	11	0.5	BU	2425	VI	—
12	0.5	BK / YE	2080	I	—	Driver Heated Seat Thermistor Low Reference	12	0.5	BK / YE	2080	VI	—
13	0.5	YE / GY	2079	I	—	Driver Seat Heating Temperature Sensor Signal	13	0.5	YE / GY	2079	VI	—
14	0.75	BN / BK	2078	II	—	Driver Seat Heating Element Low Reference	14	0.75	BN / BK	2078	VI	—
15	0.75	BN / VT	2077	II	—	Driver Seat Heating Element Control	15	0.75	BN / VT	2077	VI	—
16	0.75	RD / WH	3440	III	—	Battery Positive Voltage	16	0.75	RD / WH	3440	V	—

X302B Front Seat Wiring Harness - Driver to Body Wiring Harness



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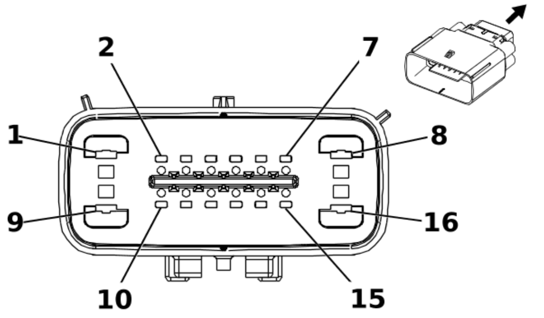


4209017

Connector Part Information

Harness Type: Front Seat Wiring Harness - Driver
OEM Connector: 34985-1607
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5, 2.8 MX Series, Sealed(GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 34986-1602
Service Connector: 19352214
Description: 16-Way M 1.5, 2.8 MX Series, Sealed(L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	86800300	J-35616-3 (GY)	J-38125-217

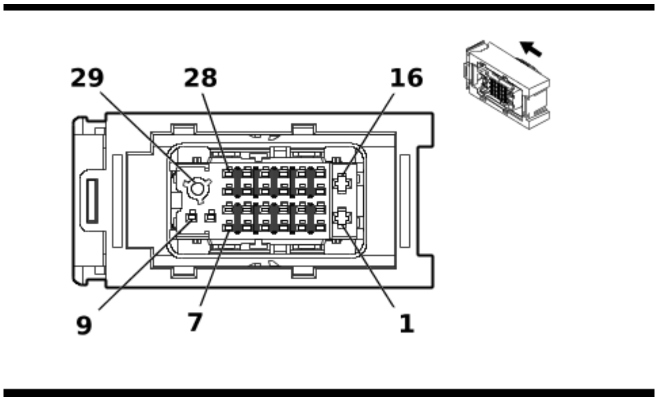
X302B Front Seat Wiring Harness - Driver to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.35	BU / GN	614	I	—	Seat Memory Switch Set Signal	2	0.35	BU / GN	614	II	—
3	0.35	WH	615	I	—	Seat Memory Switch Signal 1	3	0.35	WH	615	II	—
4 - 9	—	—	—	—	—	Not Occupied	4 - 9	—	—	—	—	—
10	0.5	VT / GN	839	I	—	Run/Crank Ignition 1 Voltage	10	0.5	VT / GN	839	II	—
11	0.5	GN / VT	5906	I	—	Driver Seat Blower Motor Control 1	11	0.5	GN / VT	5906	II	—
12	0.35	WH	4100	I	—	AUTOSAR CAN Bus [-] 4 Serial Data	12	0.35	WH	4100	II	—
13	0.35	BU / VT	4101	I	—	AUTOSAR CAN Bus [+] 4 Serial Data	13	0.35	BU / VT	4101	II	—
14	0.35	WH	4100	I	—	AUTOSAR CAN Bus [-] 4 Serial Data	14	0.5	WH	4100	II	—

X302B Front Seat Wiring Harness - Driver to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
15	0.35	BU / VT	4101	I	—	AUTOSAR CAN Bus [+] 4 Serial Data	15	0.5	BU / VT	4101	II	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—

X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver



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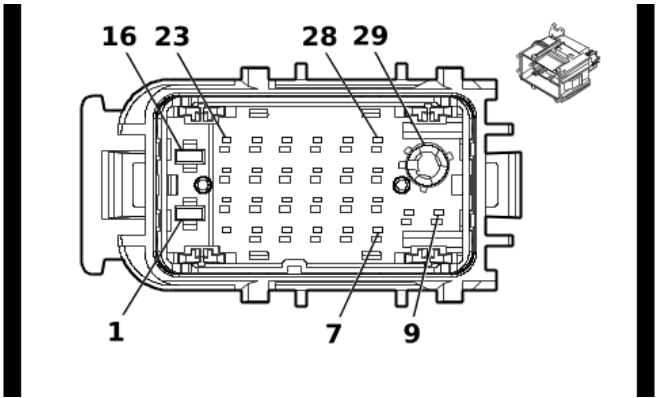


6154847

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35383762
Service Connector: Service by Harness - See Part Catalog
Description: 29-Way F 1.2, 2.8 CTS Coaxial Series, Sealed(YE)

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver
OEM Connector: 35383764
Service Connector: Service by Harness - See Part Catalog
Description: 29-Way M 1.2 CTS, 2.8 DCS-2, Coaxial Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	Service by Cable	No Tool Required	J-38125-12A
IV	Not required	J-35616-13 (BU)	No Tool Required
V	Not required	J-35616-17 (L-GN)	No Tool Required
VI	Not required	J-35616-5 (PU)	No Tool Required
VII	Not required	No Tool Required	No Tool Required

X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	BK	3750	II	—	Ground	1	2.5	BK	1150	VI	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.35	BK / WH	451	I	—	Signal Ground	3	0.35	BK / WH	3051	V	—
4	0.35	BU / GN	614	I	—	Seat Memory Switch Set Signal	4	0.35	BU / GN	614	V	—
5	0.35	WH	615	I	—	Seat Memory Switch Signal 1	5	0.35	WH	615	V	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.35	GN / YE	6134	I	—	Body Control Module LIN Bus 3	7	0.35	GN / YE	6134	V	—
8 - 10	—	—	—	—	—	Not Occupied	8 - 10	—	—	—	—	—

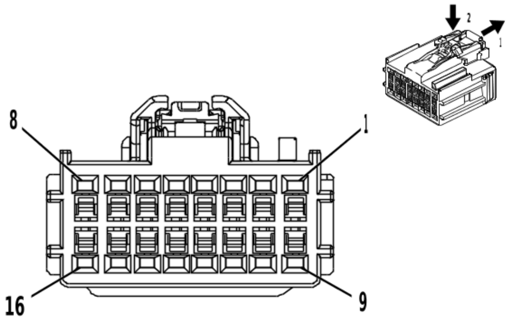
X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.5	OG / GN	2132	I	—	Left Front Side Impact Sensor Signal	11	0.5	OG / GN	2132	V	—
12	0.5	BK / OG	6628	I	—	Left Front Side Impact Sensor Low Reference	12	0.5	BK / OG	6628	V	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.35	VT / GY	4302	I	—	Passive Entry Left Antenna Signal Low	14	0.5	VT / GY	4302	V	—
15	0.35	VT	4301	I	—	Passive Entry Left Antenna Signal High	15	0.5	VT	4301	V	—
16	2.5	RD / BU	1240	II	—	Battery Positive Voltage	16	2.5	RD / GY	3540	VI	—
17	0.5	RD / VT	1940	I	—	Battery Positive Voltage	17	0.5	RD / VT	1940	V	—
18	—	—	—	—	—	Not Occupied	18	—	—	—	—	—
19	0.35	VT / GY	126	I	—	Left Front Door Open Switch Signal	19	0.35	VT / GY	126	V	—
20	0.35	BU	2675	I	—	Left Front Exterior Door Handle Switch Unlock Signal	20	0.35	BU	2675	V	—
21 - 22	—	—	—	—	—	Not Occupied	21 - 22	—	—	—	—	—
23	0.75	WH	2679	I	—	Lock Actuators Unlock Control 1	23	0.75	WH	2679	V	—
24	0.75	GY	2681	I	—	Left Front Door Lock Actuator Lock Control	24	0.75	GY	2681	V	—
25 - 26	—	—	—	—	—	Not Occupied	25 - 26	—	—	—	—	—
27	0.75 1	BU BU	201 201	I I	UQ3 UQA	Left Front Speaker 1 [+] Control Left Front Speaker 1 [+] Control	27	1	BU	201	IV	—
28	0.75 1	BN / BU BN / BU	118 118	I I	UQ3 UQA	Left Front Speaker [-] Control 1 Left Front Speaker [-] Control 1	28	1	BN / BU	118	IV	—

X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
29	0	WH	4725	III	—	Left Sideview Camera LVDS (Low Voltage Differential Signaling) Coaxial Signal	29	0	WH	4725	VII	—

X304 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness Extension Harness



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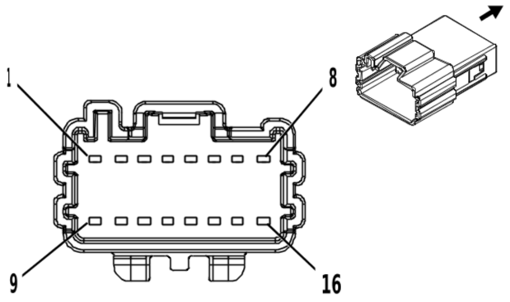


4223086

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 6098-8451
Service Connector: 13541574
Description: 16-Way F 1.2 OCS Series(BK)

Connector Part Information

Harness Type: Front Floor Console Wiring Harness Extension Harness
OEM Connector: 6098-8828
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M 1.2 Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19371240	J-35616-12 (BU)	J-38125-215A
II	Not required	J-35616-17 (L-GN)	No Tool Required

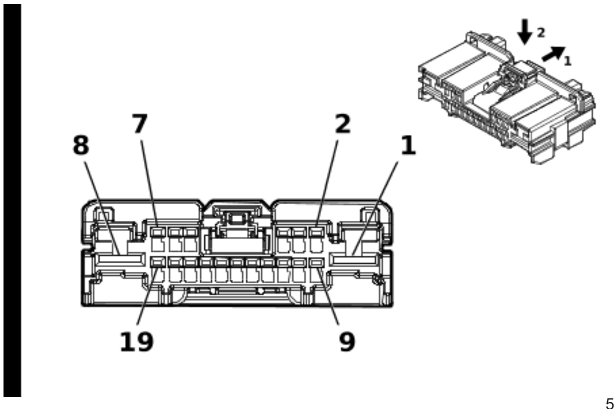
X304 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness Extension Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	WH / BN	2203	I	—	Enhanced Driver Mode 2 Switch Signal	1	0.35	WH / BN	2203	II	—
2	0.35	BK / GY	2204	I	—	Enhanced Driver Mode 1 Switch Low Reference	2	0.35	BK / GY	2204	II	—
3	0.35	GN / BU	6133	I	—	Body Control Module LIN Bus 2	3	0.35	GN / BU	6133	II	—
4	0.35	GN / YE	2731	I	—	Brake System Control Module LIN Bus 1	4	0.35	GN / YE	2731	II	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.35	VT / GN	39	I	—	Run/Crank Ignition 1 Voltage	6	0.35	VT / GN	39	II	—
7	0.5	RD / VT	6340	I	—	Battery Positive Voltage	7	0.5	RD / VT	6340	II	—
8	0.35	RD / GN	5140	I	—	Battery Positive Voltage	8	0.35	RD / GN	5140	II	—

X304 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness Extension Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.35	BU / WH	4985	I	—	AUTOSAR CAN Bus [+] 5 Serial Data	9	0.35	BU / WH	4985	II	—
10	0.35	BU / YE	4984	I	—	AUTOSAR CAN Bus [-] 5 Serial Data	10	0.35	BU / YE	4984	II	—
11	0.35	BU / WH	4985	I	—	AUTOSAR CAN Bus [+] 5 Serial Data	11	0.35	BU / WH	4985	II	—
12	0.35	BU / YE	4984	I	—	AUTOSAR CAN Bus [-] 5 Serial Data	12	0.35	BU / YE	4984	II	—
13	0.35	YE	6817	I	—	LED Backlight Dimming Control 1	13	0.35	YE	6817	II	—
14	0.35	GN / VT	4759	I	—	Transmission Shift Lever Position Indicator 2 Control	14	0.35	GN / VT	4759	II	—
15	0.35	BK / WH	2151	I	—	Signal Ground	15	0.35	BK / WH	2151	II	—
16	0.5	BK	2050	I	—	Ground Ground	16	0.35 0.5	BK BK	2050 2050	II II	- (NP0/ NQH/ K4C) (NP0/ NQH/ K4C)

X305 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness



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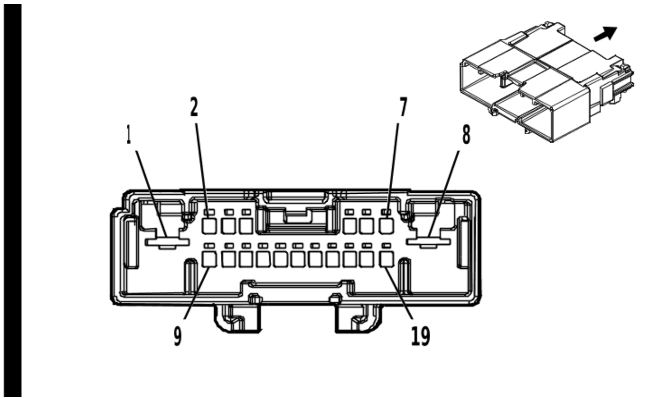


4879946

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 6098-8756
Service Connector: 13526847
Description: 19-Way F 1.2, 6.3 Series(BK)

Connector Part Information

Harness Type: Front Floor Console Wiring Harness
OEM Connector: 6098-8086
Service Connector: Service by Harness - See Part Catalog
Description: 19-Way M 1.2 MCON, 6.3 YESC Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578928	J-35616-42 (RD)	J-38125-11A
II	19371240	J-35616-12 (BU)	J-38125-215A
III	84962854	J-35616-12 (BU)	J-38125-215A
IV	Not required	J-35616-13 (BU)	No Tool Required
V	Not required	J-35616-17 (L-GN)	No Tool Required
VI	Not required	J-35616-43 (RD)	No Tool Required

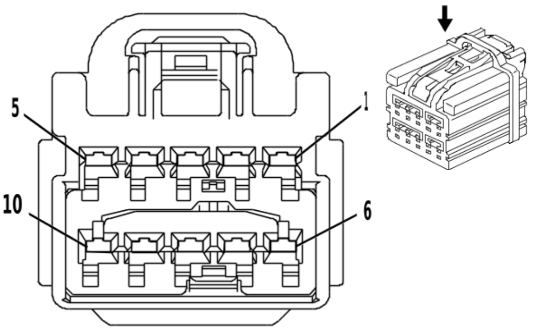
X305 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	BK	2050	I	—	Ground Ground	1	1 2.5	BK BK	2050 2050	VI VI	- (KI6/ KI7/ UBI/ UBP) (KI6/ KI7/ UBI/ UBP)
2	0.5	VT	4701	III	—	Retained Accessory Power Control	2	0.5	VT	4701	V	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—
5	0.75	Bare	10116	III	—	AC Outlet Low Reference	5	0.75	Bare	10116	IV	—
6	0.75	BK	10117	III	—	AC Outlet Phase A Control	6	0.75	BK	10117	IV	—
7	0.75	RD	10118	III	—	AC Outlet Phase B Control	7	0.75	RD	10118	IV	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X305 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	1	VT	1001	II	—	Retained Accessory Power Ignition Voltage	9	1	VT	1001	IV	—
10 - 11	—	—	—	—	—	Not Occupied	10 - 11	—	—	—	—	—
12	0.35	WH / GY	4997	III	—	Immobilizer Antenna Low Signal	12	0.35	WH / GY	4997	V	—
13	0.35	BN / BK	4996	III	—	Immobilizer Antenna Signal [+]	13	0.35	BN / BK	4996	V	—
14	0.35	BN / BK	3552	III	—	Interior Passive Entry Antenna 1 High Signal	14	0.35	BN / BK	3552	V	—
15	0.35	WH	3553	III	—	Interior Passive Entry Antenna 1 Low Signal	15	0.35	WH	3553	V	—
16 - 17	—	—	—	—	—	Not Occupied	16 - 17	—	—	—	—	—
18	0.5	VT / RD	4049	III	—	AC Power Outlet Sensor High Reference	18	0.5	VT / RD	4049	V	—
19	0.5	BU / BN	6807	III	—	DC/AC Inverter Control	19	0.5	BU / BN	6807	V	—

X315 Instrument Panel Wiring Harness to Air Conditioning Wiring Harness



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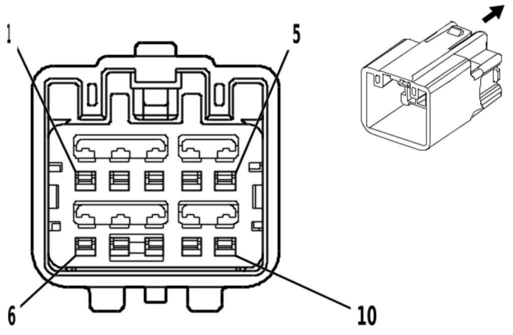

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Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 7283-6455-40
Service Connector: 22708788
Description: 10-Way F 1.5 Kaizen Series(L-GY)

Connector Part Information

Harness Type: Air Conditioning Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way M (L-GY)

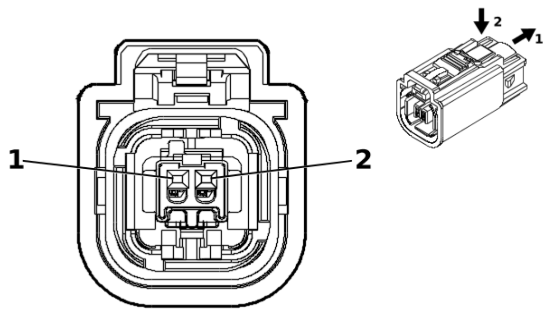
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13578891	J-35616-2A (GY)	J-38125-11A
II	Not required	No Tool Required	No Tool Required

X315 Instrument Panel Wiring Harness to Air Conditioning Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 4	—	—	—	—	—	Not Occupied	1 - 4	—	—	—	—	—
5	0.35	GY	6137	I	—	Air Conditioning Evaporator Temperature Sensor Signal	5	0.35	GY	6137	II	—
6	0.35	GN / VT	2852	I	—	Body Control Module LIN Bus 6	6	0.35	GN / VT	2852	II	—
7	0.35	BK / YE	407	I	—	Sensor Low Reference	7	0.35	BK / YE	407	II	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—
9	0.35	WH / YE	4634	I	—	HVAC Remote Enable Signal	9	0.35	WH / YE	4634	II	—
10	0.5	BK	2050	I	—	Ground	10	0.5	BK	2050	II	—

X367 Instrument Panel Wiring Harness to Body Wiring Harness



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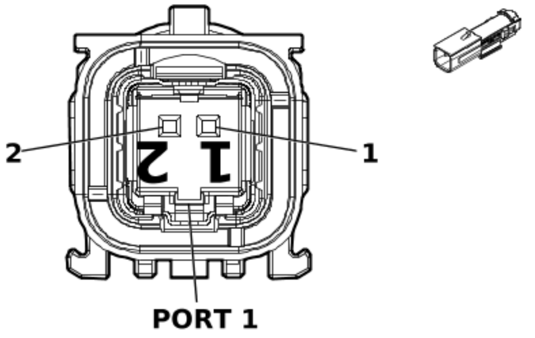

5909921

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 35212796
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 050 CTS Ethernet Series, Sealed(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 35185531
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 050 CTS Ethernet Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Service by Cable	No Tool Required	No Tool Required
II	Service by Cable	No Tool Required	No Tool Required

X367 Instrument Panel Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.1	WH	7211	I	—	Ethernet Bus 4 [+]	1	0	WH	7211	II	—
2	0.1	GN	7210	I	—	Ethernet Bus 4 [-]	2	0	GN	7210	II	—

X371 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA)

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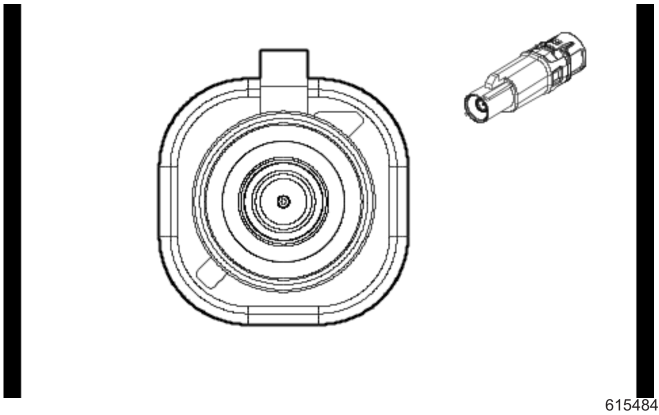


6154842

Connector Part Information

Harness Type: Rearview Camera Wiring Harness Jumper

OEM Connector: Not Available

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F

Connector Part Information

Harness Type: Rearview Camera Wiring Harness

OEM Connector: 13517385

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way M Coax Type(GY)

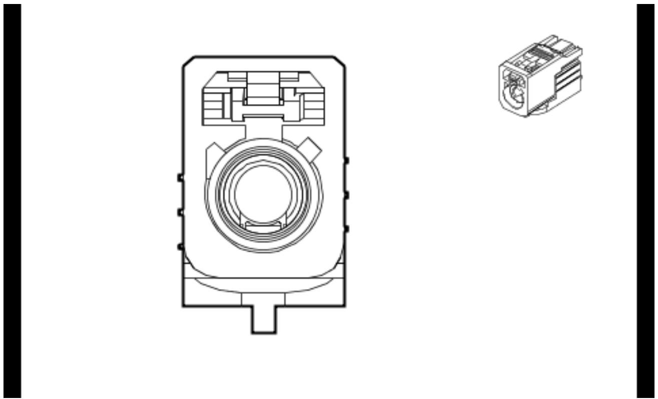
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X371 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	LVDS	—	I	—	(Infotainment) Infotainment Display Signal	—	—	LVDS	—	I	—

X372 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA)



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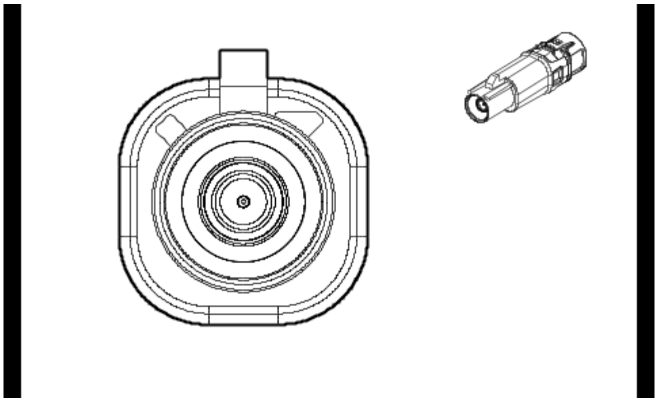


5295025

Connector Part Information

Harness Type: Rearview Camera Wiring Harness Jumper

OEM Connector: Not Available

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F

Connector Part Information

Harness Type: Rearview Camera Wiring Harness

OEM Connector: 13517379

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way M Coax Type(BK)

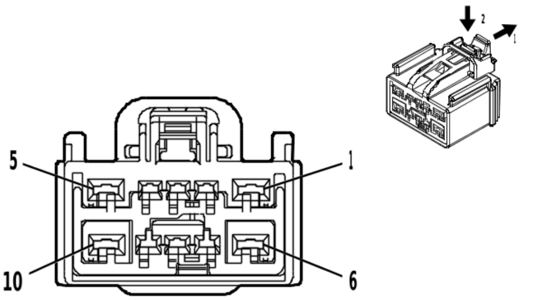
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X372 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	LVDS	—	I	—	(PDR) Front Vision Camera #2	—	—	LVDS	—	I	—

X375 Roof Wiring Harness to Sunroof Jumper Wiring Harness (CAC)



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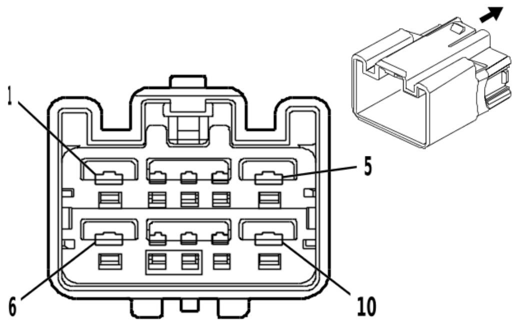


1851890

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 7289-9153-40
Service Connector: 13518747
Description: 10-Way F 1.5, 2.8 Kaizen Series(L-GY)

Connector Part Information

Harness Type: Sunroof Jumper Wiring Harness
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way M (L-GY)

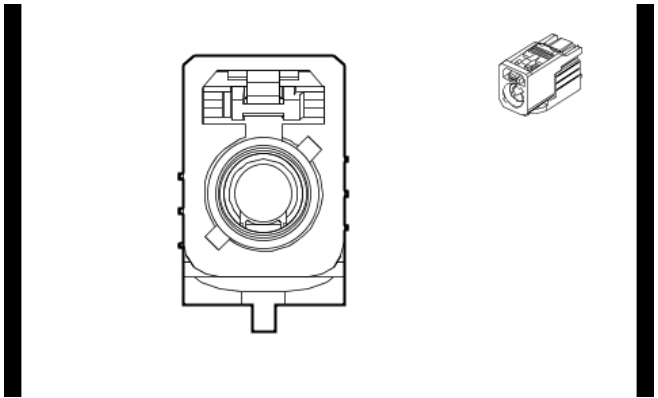
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13587516	J-35616-4A (PU)	J-38125-11A
II	19332534	J-35616-2A (GY)	J-38125-557
III	Not required	No Tool Required	No Tool Required

X375 Roof Wiring Harness to Sunroof Jumper Wiring Harness (CAC)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1 - 3	—	—	—	—	—	Not Occupied	1 - 3	—	—	—	—	—
4	0.35	GN / WH	2854	II	—	Body Control Module LIN Bus 8	4	0.35	GN / WH	2854	III	—
5	1.5	BK	1850	I	—	Ground	5	1.5	BK	1850	III	—
6	1.5	RD / YE	2340	I	—	Battery Positive Voltage	6	1.5	RD / YE	2340	III	—
7	0.35	BU / VT	5027	II	—	Sunroof Switch Serial Data 1 Signal	7	0.35	BU / VT	5027	III	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—
9	0.35	WH / GN	3031	II	—	Sunroof Vent Switch Signal	9	0.35	WH / GN	3031	III	—
10	—	—	—	—	—	Not Occupied	10	—	—	—	—	—

X380 Instrument Panel Wiring Harness to Body Wiring Harness (UV2 / UXA - UVB)



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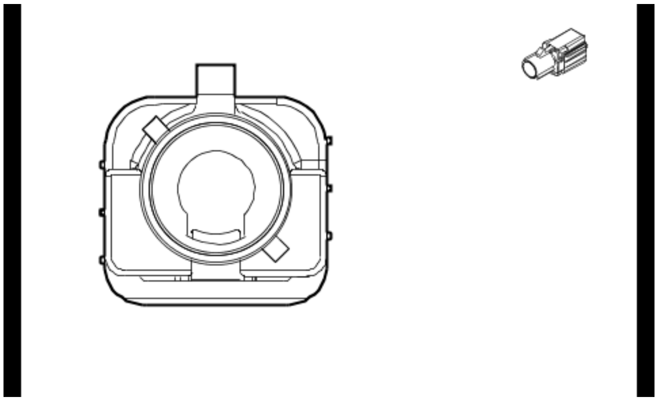


5873701

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX
OEM Connector: 13516410
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(BU)

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13516061
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way M Coax Type(BU)

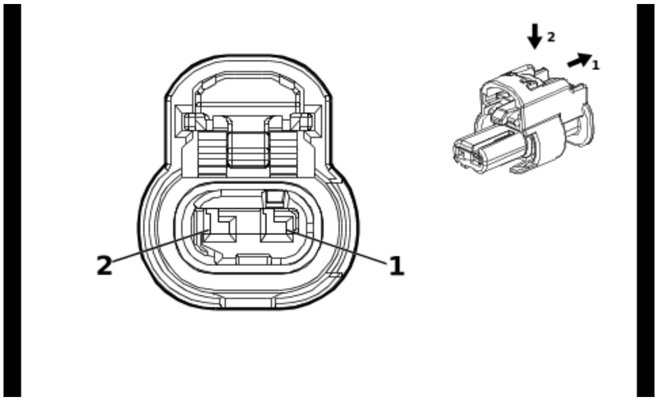
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X380 Instrument Panel Wiring Harness to Body Wiring Harness (UV2 / UXA - UVB)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	Video Processing Module Coaxial Video Signal	—	—	Coax Cable	—	I	—

X382 Chassis Wiring Harness to Chassis Wiring Harness



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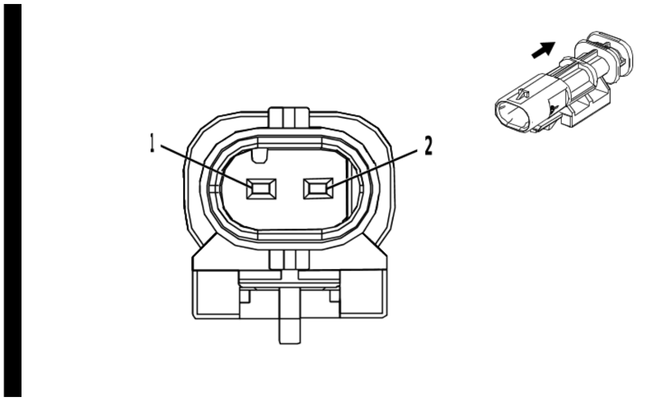

2474755

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 1-2296694-1
Service Connector: 85519075
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 13591337
Service Connector: 85533165
Description: 2-Way M 1.2 MCON Series, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

X382 Chassis Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	RD / BU	840	I	—	Battery Positive Voltage	1	0.75	RD / BU	840	II	—
2	0.5	BK	750	I	—	Ground	2	0.75	BK	750	II	—

X383 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)

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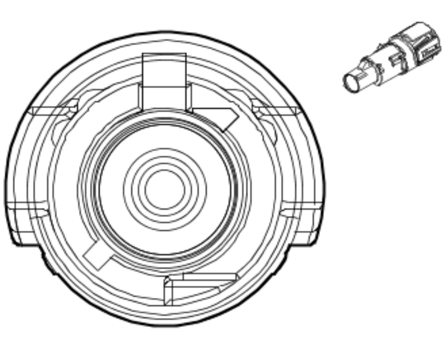


6154828

Connector Part Information

Harness Type: Rearview Camera Wiring Harness Jumper
OEM Connector: Not Available
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13516812
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way M Coax Type, Sealed(GY)

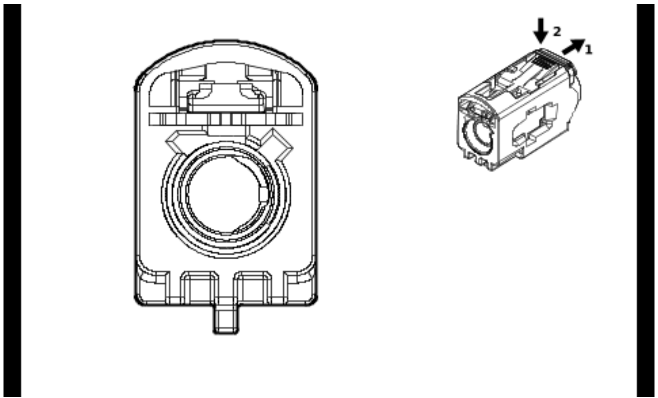
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X383 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	LVDS	—	I	—	(Infotainment) Infotainment Display Signal	—	—	LVDS	—	I	—

X384 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)



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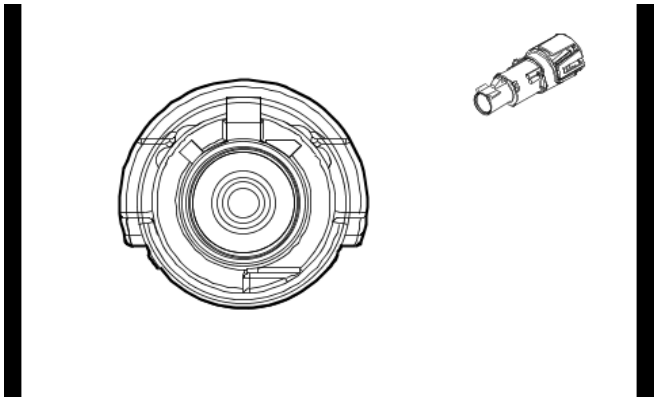


5518522

Connector Part Information

Harness Type: Rearview Camera Wiring Harness Jumper
OEM Connector: Not Available
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 13516806
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way M Coax Type, Sealed(BK)

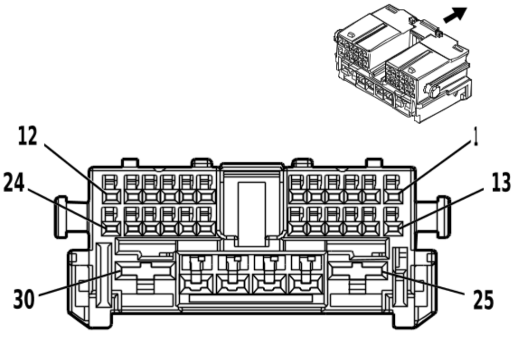
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X384 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	LVDS	—	I	—	(PDR) Front Vision Camera #2	—	—	LVDS	—	I	—

X393 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver



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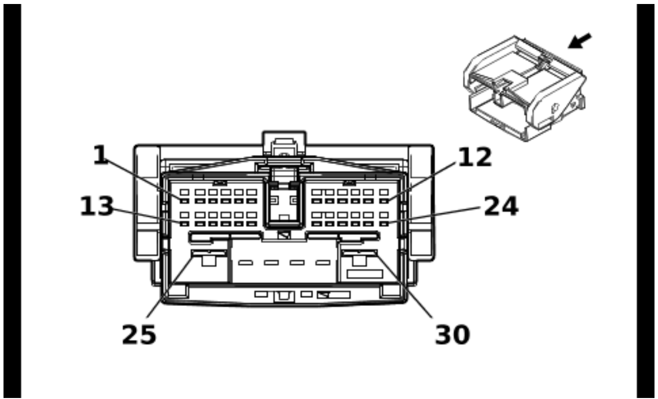


4249201

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Driver

OEM Connector: 7298-4329-30

Service Connector: Service by Harness - See Part Catalog

Description: 30-Way F 1.2 MCON, 2.8, 6.3 YESC Series(BK)

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Driver

OEM Connector: 7297-4331-30

Service Connector: Service by Harness - See Part Catalog

Description: 30-Way M 1.2 MCON, 2.8, 6.3 YESC Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	Not required	J-35616-42 (RD)	No Tool Required
IV	Not required	J-35616-17 (L-GN)	No Tool Required
V	Not required	J-35616-43 (RD)	No Tool Required
VI	Not required	J-35616-5 (PU)	No Tool Required

X393 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BN / GY	4784	I	—	Left Front Door LED Backlight Dimming Control	1	0.35	BN / GY	4784	IV	—
2	0.35	VT / YE	4244	I	—	Left Front Door Lock Indicator Control	2	0.35	VT / YE	4244	IV	—
3	0.35	WH / VT	4258	I	—	Left Front Door Lock Status Signal	3	0.35	WH / VT	4258	IV	—
4	0.35	BN / YE	2771	I	—	Left Front Door Lock Switch Lock Signal	4	0.35	BN / YE	2771	IV	—

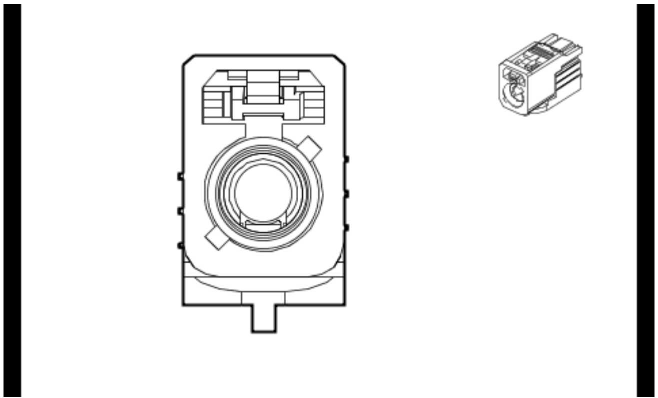
X393 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
5	0.35	BN / WH	2772	I	—	Left Front Door Lock Switch Unlock Signal	5	0.35	BN / WH	2772	IV	—
6	0.35	GY / YE	1760	I	—	Left Side Object Detection LED Control	6	0.35	GY / YE	1760	IV	—
7	0.35	GN / YE	6134	I	—	Body Control Module LIN Bus 3	7	0.35	GN / YE	6134	IV	—
8	—	—	—	—	—	Left Front Door Ajar Switch Signal	8	0.35	GY	745	IV	—
9	0.35	GY / GN	2763	I	—	Window Switch Left Front Up Signal	9	0.35	GY / GN	2763	IV	—
10	0.35	WH / BN	2764	I	—	Window Switch Left Front Down Signal	10	0.35	WH / BN	2764	IV	—
11	0.35	GN	2766	I	—	Power Window Switch Left Front Express Signal	11	0.35	GN	2766	IV	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—
13	0.5	WH	606	I	—	Left Outside Rearview Mirror Heater Control	13	0.5	WH	606	IV	—
14 - 15	—	—	—	—	—	Not Occupied	14 - 15	—	—	—	—	—
16	0.35	VT / BU	2788	I	—	Left Front Mirror Motor Up [+] Down [-] Control	16	0.35	VT / BU	2788	IV	—
17	0.35	YE / BN	2789	I	—	Left Front Mirror Motor Common Control	17	0.35	YE / BN	2789	IV	—
18	0.35	BN / BK	2790	I	—	Left Front Mirror Motor Right [+] Left [-] Control	18	0.35	BN / BK	2790	IV	—
19	0.35	GY / BN	2787	I	—	Left Front Mirror Position Sensor Up [+] Down [-] Signal	19	0.35	GY / BN	2787	IV	—
20	0.35	VT / RD	2791	I	—	Left Front Mirror Position Sensor High Reference	20	0.35	VT / RD	2791	IV	—

X393 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
21	0.35	WH / YE	2792	I	—	Left Front Mirror Position Sensor Left [-] Right [+] Signal	21	0.35	WH / YE	2792	IV	—
22	0.35	BK / BN	673	I	—	Left Outside Rearview Mirror Position Sensor Low Reference	22	0.35	BK / BN	673	IV	—
23 - 24	—	—	—	—	—	Not Occupied	23 - 24	—	—	—	—	—
25	0.5	RD / VT	1940	III	—	Battery Positive Voltage	25	0.5	RD / VT	1940	V	—
26	0.5	BK	1150	II	—	Ground	26	0.5	BK	1150	VI	—
27	—	—	—	—	—	Left Front Window Motor Down Control	27	2	YE / VT	165	VI	—
28	—	—	—	—	—	Left Front Window Motor Up Control	28	2	GN / GY	164	VI	—
29 - 30	—	—	—	—	—	Not Occupied	29 - 30	—	—	—	—	—

X399 Instrument Panel Wiring Harness to Body Wiring Harness (UVB - UV2)



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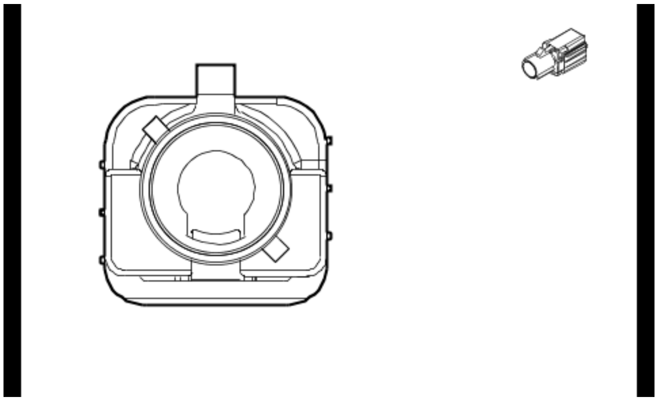


5873701

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX
OEM Connector: 13516410
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way F Coax Type(BU)

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13516061
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way M Coax Type(BU)

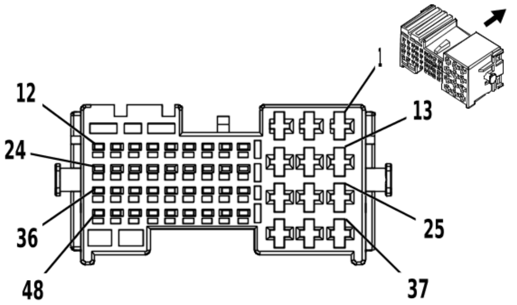
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X399 Instrument Panel Wiring Harness to Body Wiring Harness (UVB - UV2)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	Rear Vision Camera Coaxial Video Signal	—	—	Coax Cable	—	I	—

X400 Instrument Panel Wiring Harness to Body Wiring Harness



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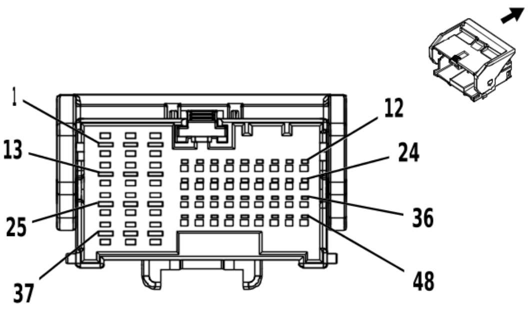


3277901

Connector Part Information

Harness Type: Instrument Panel Wiring Harness
OEM Connector: 2109452-2
Service Connector: 19329739
Description: 48-Way F 1.2 MCON, 2.8 MCP Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 5-2109455-2
Service Connector: 19329740
Description: 48-Way M 1.2 MCON, 2.8 MCP Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19329758	J-35616-12 (BU)	J-38125-215A
II	87814662	J-35616-4A (PU)	J-38125-557
III	Service by Cable	No Tool Required	No Tool Required
IV	13575574	J-35616-5 (PU)	J-38125-215A
V	86509266	J-35616-13 (BU)	J-38125-215A
VI	Service by Cable	No Tool Required	No Tool Required

X400 Instrument Panel Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75 0.5	YE / BK BN / BK	117 1953	II II	UQ3 UQA	Right Front Speaker [-] Control 1 Right Front Midrange Speaker [-] Control	1	0.75 0.5	YE / BK BN / BK	117 1953	IV IV	UQ3 UQA
2	0.75 0.5	YE WH / YE	200 1853	II II	UQ3 UQA	Right Front Speaker 1 [+] Control Right Front Midrange Speaker [+] Control	2	0.75 0.5	YE WH / YE	200 1853	IV IV	UQ3 UQA
3	0.5	YE / WH	1860	II	—	Front Center Speaker [+] Control	3	0.5	YE / WH	1860	IV	—
4	0.5	RD / GN	4440	I	—	Battery Positive Voltage	4	0.5	RD / GN	4440	V	—
5	0.5	BK / WH	1351	I	—	Signal Ground	5	0.5	BK / WH	1351	V	—

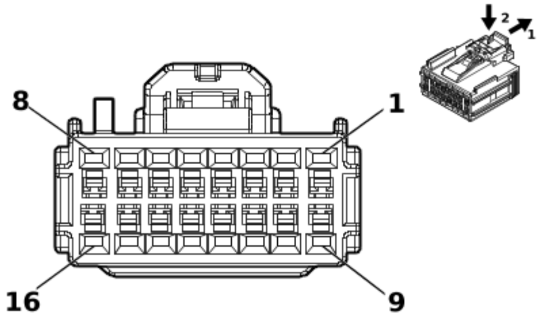
X400 Instrument Panel Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.35	GN / WH	4115	I	—	Body Control Module LIN Bus 5	6	0.35	GN / WH	4115	V	—
7	0.35	BU	4987	I	—	AUTOSAR CAN Bus [+] 1 Serial Data	7	0.35	BU	4987	V	—
8	0.35	WH	4986	I	—	AUTOSAR CAN Bus [-] 1 Serial Data	8	0.35	WH	4986	V	—
9	0.35	BU	4987	I	—	AUTOSAR CAN Bus [+] 1 Serial Data	9	0.35	BU	4987	V	—
10	0.35	WH	4986	I	—	AUTOSAR CAN Bus [-] 1 Serial Data	10	0.35	WH	4986	V	—
11	0.35	BU / YE	4979	I	—	AUTOSAR CAN Bus [+] 2 Serial Data	11	0.35	BU / YE	4979	V	—
12	0.35	WH	4978	I	—	AUTOSAR CAN Bus [-] 2 Serial Data	12	0.35	WH	4978	V	—
13	0.75	BU / BK	115	II	—	Right Rear Speaker [-] Control	13	0.75	BU / BK	115	IV	—
14	0.75	WH	46	II	—	Right Rear Speaker [+] Control	14	0.75	WH	46	IV	—
15	0.5	BU / YE	1960	II	—	Front Center Speaker [-] Control	15	0.5	BU / YE	1960	IV	—
16	0.35	BK / GY	5152	I	—	Voice Recognition Audio [-] Control	16	0.35	BK / GY	5152	V	—
17	0.35	GY / YE	5149	I	—	Voice Recognition Audio Signal	17	0.35	GY / YE	5149	V	—
18	0.35	Bare	1792	I	—	Low Reference	18	0.35	Bare	1792	V	—
19 - 22	—	—	—	—	—	Not Occupied	19 - 22	—	—	—	—	—
23	0.35	BU / BK	4977	I	—	AUTOSAR CAN Bus [+] 3 Serial Data	23	0.5	BU / BK	4977	V	—
24	0.35	WH	4976	I	—	AUTOSAR CAN Bus [-] 3 Serial Data	24	0.5	WH	4976	V	—
25 - 27	—	—	—	—	—	Not Occupied	25 - 27	—	—	—	—	—
28	0.35	BU / BK	7044	I	—	Microphone [-] Signal	28	0.35	BU / BK	7044	V	—
29	0.35	VT / YE	7043	I	—	Microphone [+] Signal	29	0.35	VT / YE	7043	V	—
30 - 32	—	—	—	—	—	Not Occupied	30 - 32	—	—	—	—	—

X400 Instrument Panel Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
33	0.35	WH	8580	III	—	Automotive Audio Bus A2B Serial Data 1 [+]	33	0.35	WH	8580	VI	—
34	0.35	GN	8579	III	—	Automotive Audio Bus A2B Serial Data 1 [-]	34	0.35	GN	8579	VI	—
35 - 36	—	—	—	—	—	Not Occupied	35 - 36	—	—	—	—	—
37	2.5	BK	4250	II	—	Ground	37	2.5	BK	4250	IV	—
38	—	—	—	—	—	Not Occupied	38	—	—	—	—	—
39	0.75	RD / GN	1840	II	—	Battery Positive Voltage	39	1.5	RD / GN	1840	IV	—
40 - 48	—	—	—	—	—	Not Occupied	40 - 48	—	—	—	—	—

X401 Roof Wiring Harness to Body Wiring Harness



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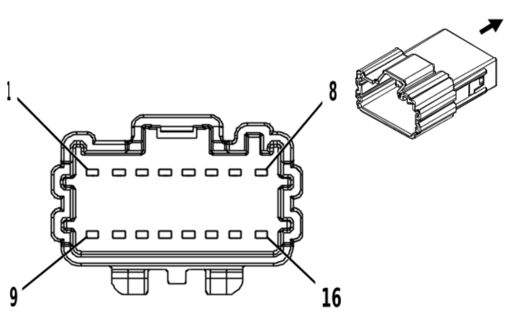


4218594

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 6098-9013
Service Connector: 13541573
Description: 16-Way F 1.2 MCON Series(GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 6098-8829
Service Connector: 13527235
Description: 16-Way M 1.2 Series(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19371240	J-35616-12 (BU)	J-38125-215A
II	84726946	J-35616-13 (BU)	J-38125-215A

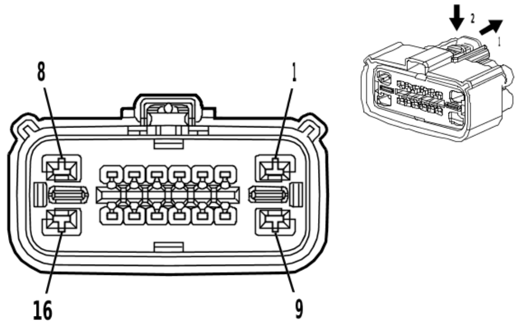
X401 Roof Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	BK	4250	I	—	Ground	1	0.75	BK	4250	II	—
2	0.5 0.35	WH / BN WH / BN	6815 6815	I I	C75+ DEG - C75- DEG	Inadvertent Load Control Inadvertent Load Control	2	0.5	WH / BN	6815	II	—
3	0.5	GY	157	I	—	Interior Lamp Control	3	0.5	GY	157	II	—
4	0.35	GY	156	I	—	Courtesy Lamp Switch Signal	4	0.35	GY	156	II	—
5	0.35	GY / GN	328	I	—	Interior Lamp Defeat Switch Signal	5	0.35	GY / GN	328	II	—
6 - 10	—	—	—	—	—	Not Occupied	6 - 10	—	—	—	—	—
11	0.35	YE	6817	I	—	LED Backlight Dimming Control 1	11	0.35	YE	6817	II	—
12	0.35	GN / WH	2854	I	—	Body Control Module LIN Bus 8	12	0.35	GN / WH	2854	II	—
13	0.35	GN / YE	2862	I	—	Body Control Module LIN Bus 16	13	0.35	GN / YE	2862	II	—

X401 Roof Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
14 - 16	—	—	—	—	—	Not Occupied	14 - 16	—	—	—	—	—

X402A Front Seat Wiring Harness - Passenger to Body Wiring Harness



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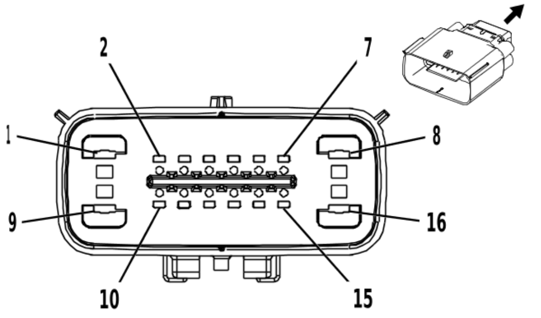


2373686

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 34985-2161
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5, 2.8 MX Series, Sealed(YE)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 34986-1605
Service Connector: 19331031
Description: 16-Way M 1.5, 2.8 MX Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	Not required	No Tool Required	No Tool Required
IV	19366658	J-35616-5 (PU)	J-38125-12A
V	86800300	J-35616-3 (GY)	J-38125-217

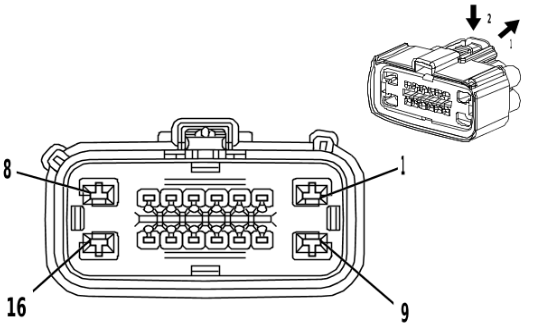
X402A Front Seat Wiring Harness - Passenger to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5 1.5	BK BK	4250 4250	II II	A7J/ (KA1+ KU9) KA1- KU9- A7J	Ground Ground	1	2.5	BK	4250	IV	—
2	0.5	OG / GY	4956	III	—	Passenger Seat Back Air Bag High Control	2	0.5	OG / GY	4956	V	—
3	0.5	BU / OG	4957	III	—	Passenger Seat Back Air Bag Low Control	3	0.5	BU / OG	4957	V	—
4	0.5	BK / WH	1351	I	—	Signal Ground	4	0.5	BK / WH	1351	V	—
5	0.5	GY / OG	3946	I	—	Passenger Automatic Locking Retractor Switch Low Reference	5	0.5	GY / OG	3946	V	—

X402A Front Seat Wiring Harness - Passenger to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	OG / BN	3947	I	—	Passenger Automatic Locking Retractor Switch Signal	6	0.5	OG / BN	3947	V	—
7	0.5	RD / GN	4440	I	—	Battery Positive Voltage	7	0.5	RD / GN	4440	V	—
8	2.5	RD / YE	4340	II	—	Battery Positive Voltage	8	2.5	RD / YE	4340	IV	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	OG / VT	1362	I	—	Passenger Seat Belt Switch Signal	10	0.5	OG / VT	1362	V	—
11	0.5	BK / OG	1363	I	—	Driver Seat Belt Switch Low Reference	11	0.5	BK / OG	1363	V	—
12	0.5	WH	4986	I	—	AUTOSAR CAN Bus [-] 1 Serial Data	12	0.35	WH	4986	V	—
13	0.5	BU	4987	I	—	AUTOSAR CAN Bus [+] 1 Serial Data	13	0.35	BU	4987	V	—
14	0.5	WH	4986	I	—	AUTOSAR CAN Bus [-] 1 Serial Data	14	0.35	WH	4986	V	—
15	0.5	BU	4987	I	—	AUTOSAR CAN Bus [+] 1 Serial Data	15	0.35	BU	4987	V	—
16	0.75	RD / BN	4240	II	—	Battery Positive Voltage	16	0.75	RD / BN	4240	IV	—

X402B Front Seat Wiring Harness - Passenger to Body Wiring Harness



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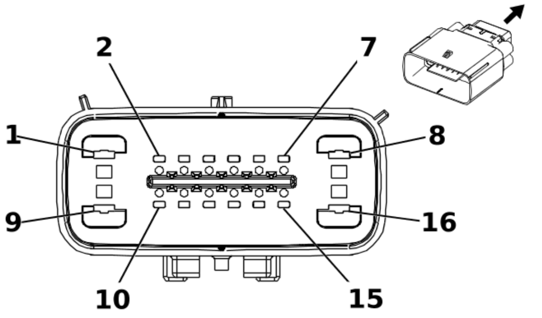


4209017

Connector Part Information

Harness Type: Front Seat Wiring Harness - Passenger
OEM Connector: 34985-1607
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5, 2.8 MX Series, Sealed(GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 34986-1602
Service Connector: 19352214
Description: 16-Way M 1.5, 2.8 MX Series, Sealed(L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	86800300	J-35616-3 (GY)	J-38125-217

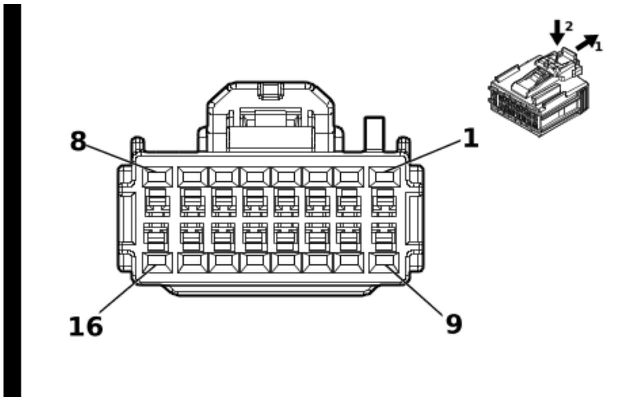
X402B Front Seat Wiring Harness - Passenger to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BN / VT	2077	II	—	Driver Seat Heating Element Control	2	0.75	BN / VT	2077	III	—
3	0.75	BN / BK	2078	II	—	Driver Seat Heating Element Low Reference	3	0.75	BN / BK	2078	III	—
4	0.5	YE / GY	2079	I	—	Driver Seat Heating Temperature Sensor Signal	4	0.5	YE / GY	2079	III	—
5	0.5	BK / YE	2080	I	—	Driver Heated Seat Thermistor Low Reference	5	0.5	BK / YE	2080	III	—
6	0.5	BU	2425	I	—	Driver Seat Back Heating Temperature Sensor Signal	6	0.5	BU	2425	III	—
7 - 9	—	—	—	—	—	Not Occupied	7 - 9	—	—	—	—	—

X402B Front Seat Wiring Harness - Passenger to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
10	0.5	GN / VT	2857	I	—	Body Control Module LIN Bus 11	10	0.35	GN / VT	2857	III	—
11	0.75	RD / BU	4540	II	—	Battery Positive Voltage	11	0.75	RD / BU	4540	III	—
12	0.75	RD / VT	4640	II	—	Battery Positive Voltage	12	0.75	RD / VT	4640	III	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	GN / VT	5906	I	—	Driver Seat Blower Motor Control 1	14	0.5	GN / VT	5906	III	—
15	0.5	VT / GN	839	I	—	Run/Crank Ignition 1 Voltage	15	0.5	VT / GN	839	III	—
16	—	—	—	—	—	Not Occupied	16	—	—	—	—	—

X402C Roof Wiring Harness to Body Wiring Harness



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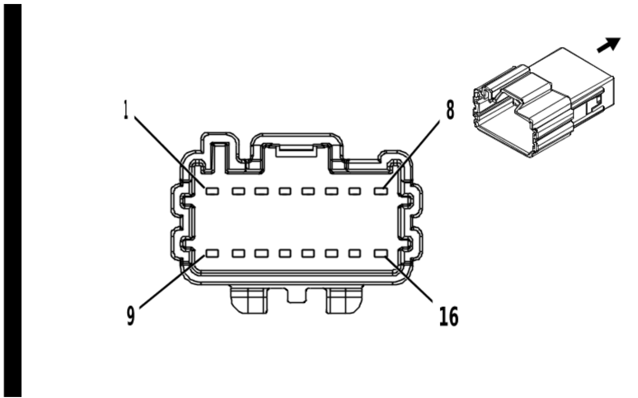


4223086

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 6098-9012
Service Connector: 13541574
Description: 16-Way F 1.2 MCON Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 6098-8828
Service Connector: 13526848
Description: 16-Way M 1.2 Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	19371240	J-35616-12 (BU)	J-38125-215A
II	84726946	J-35616-13 (BU)	J-38125-215A

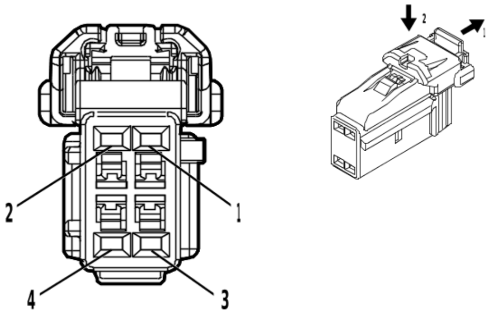
X402C Roof Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35 0.5	BK / WH BK / WH	1851 1851	I I	- (DD8) - (CJ2) (DD8/ CJ2)	Signal Ground Signal Ground	1	0.5	BK / WH	451	II	—
2	0.35	RD / YE	240	I	—	Battery Positive Voltage	2	0.35	RD / YE	240	II	—
3	0.35	RD / VT	4040	I	—	Battery Positive Voltage	3	0.35	RD / VT	4040	II	—
4	0.35	BU	2307	I	—	Passenger Air Bag On Indicator Control	4	0.35	BU	2307	II	—
5	0.35	GN	2308	I	—	Passenger Air Bag Off Indicator Control	5	0.35	GN	2308	II	—
6	0.35 0.35	GN VT / WH	3118 5234	I I	C91 - C91	Roof Rail Air Bag Disable Indicator Control Passenger Seat Belt Indicator Control	6	0.35 0.35	GN VT / WH	3118 5234	II II	C91 - C91
7	0.35	GN / WH	4115	I	—	Body Control Module LIN Bus 5	7	0.35	GN / WH	4115	II	—

X402C Roof Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.35	GN / WH	24	I	—	Backup Lamp Control	8	0.35	GN / WH	24	II	—
9	0.35 0.35	VT / WH VT / GN	1139 39	I I	DD8 - DD8	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	9	0.5	VT / WH	1139	II	—
10	0.35	BU / BK	7044	I	—	Microphone [-] Signal	10	0.35	BU / BK	7044	II	—
11	0.35	VT / YE	7043	I	—	Microphone [+] Signal	11	0.35	VT / YE	7043	II	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—
13	0.35	BU / YE	4979	I	—	AUTOSAR CAN Bus [+] 2 Serial Data	13	0.5	BU / YE	4979	II	—
14	0.35	WH	4978	I	—	AUTOSAR CAN Bus [-] 2 Serial Data	14	0.5	WH	4978	II	—
15	0.35	BU / YE	4979	I	—	AUTOSAR CAN Bus [+] 2 Serial Data	15	0.35	BU / YE	4979	II	—
16	0.35	WH	4978	I	—	AUTOSAR CAN Bus [-] 2 Serial Data	16	0.35	WH	4978	II	—

X402D Inside Air Moisture and Windshield Temperature Sensor Jumper to Roof Wiring Harness (CJ2)



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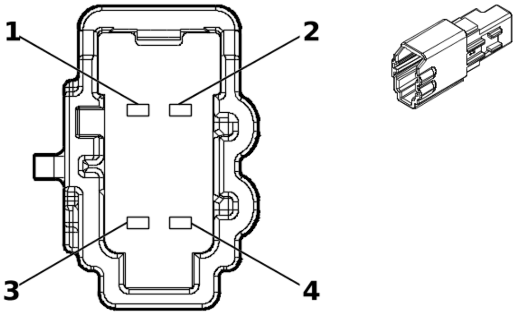


5360963

Connector Part Information

Harness Type: Inside Air Moisture and Windshield Temperature Sensor Jumper

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F

Connector Part Information

Harness Type: Roof Wiring Harness

OEM Connector: 6098-9046

Service Connector: 84847258

Description: 4-Way M 1.2 MCON Series(BK)

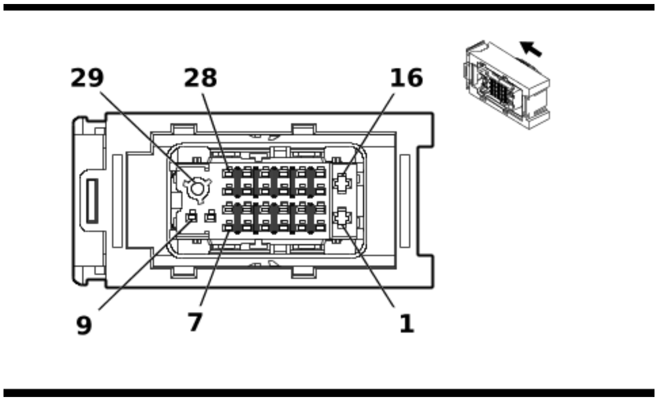
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

X402D Inside Air Moisture and Windshield Temperature Sensor Jumper to Roof Wiring Harness (CJ2)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	VT / GN	39	I	—	Run/Crank Ignition 1 Voltage	1	0.35	VT / GN	39	II	—
2	0.35	BK / WH	1851	I	—	Signal Ground	2	0.35	BK / WH	1851	II	—
3	0.35	GN / WH	4115	I	—	Body Control Module LIN Bus 5	3	0.35	GN / WH	4115	II	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—

X404 Body Wiring Harness to Front Side Door Door Wiring Harness - Passenger



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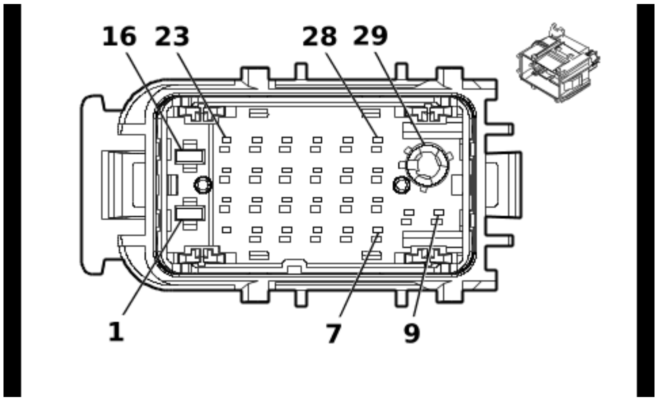


6154847

Connector Part Information

Harness Type: Body Wiring Harness

OEM Connector: 35383762

Service Connector: Service by Harness - See Part Catalog

Description: 29-Way F 1.2, 2.8 CTS Coaxial Series, Sealed(YE)

Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 35383764

Service Connector: Service by Harness - See Part Catalog

Description: 29-Way M 1.2 CTS, 2.8 DCS-2, Coaxial Series, Sealed(YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	Service by Cable	No Tool Required	J-38125-12A
IV	Not required	J-35616-13 (BU)	No Tool Required
V	Not required	J-35616-17 (L-GN)	No Tool Required
VI	Not required	J-35616-5 (PU)	No Tool Required
VII	Not required	No Tool Required	No Tool Required

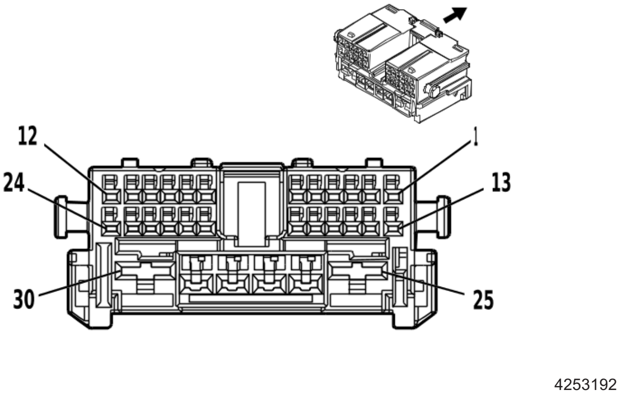
X404 Body Wiring Harness to Front Side Door Door Wiring Harness - Passenger

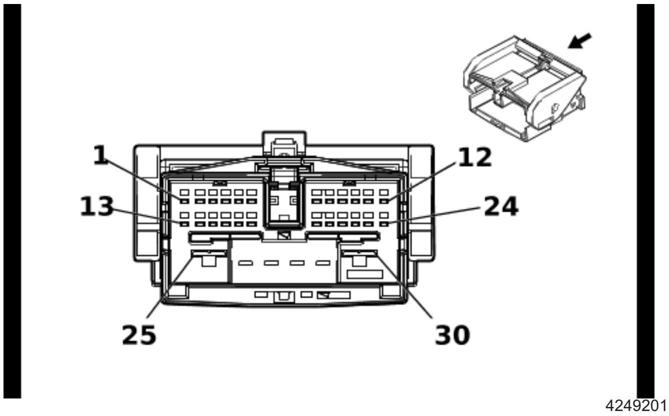
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	BK	4250	II	—	Ground	1	2.5	BK	1250	VI	—
2 - 6	—	—	—	—	—	Not Occupied	2 - 6	—	—	—	—	—
7	0.35	GN / YE	6134	I	—	Body Control Module LIN Bus 3	7	0.35	GN / YE	6134	V	—
8 - 10	—	—	—	—	—	Not Occupied	8 - 10	—	—	—	—	—
11	0.5	BN / OG	2134	I	—	Right Front Side Impact Sensor Signal	11	0.5	BN / OG	2134	V	—
12	0.5	BK / OG	6629	I	—	Right Front Side Impact Sensor Low Reference	12	0.5	BK / OG	6629	V	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—

X404 Body Wiring Harness to Front Side Door Door Wiring Harness - Passenger (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
14	0.35	GN / BK	4304	I	—	Passive Entry Right Antenna Signal Low	14	0.5	GN / BK	4304	V	—
15	0.35	GN / YE	4303	I	—	Passive Entry Right Antenna Signal High	15	0.5	GN / YE	4303	V	—
16	2.5	RD / GY	3540	II	—	Battery Positive Voltage	16	2.5	RD / GY	3540	VI	—
17 - 19	—	—	—	—	—	Not Occupied	17 - 19	—	—	—	—	—
20	0.35	GY / VT	2676	I	—	Right Front Door Exterior Switch Unlock Signal	20	0.35	GY / VT	2676	V	—
21 - 22	—	—	—	—	—	Not Occupied	21 - 22	—	—	—	—	—
23	0.75	GY / BK	2680	I	—	Lock Actuators Unlock Control 2	23	0.75	GY / BK	2680	V	—
24	0.75	YE / GN	2682	I	—	Right Front Door Lock Actuator Lock Control	24	0.75	YE / GN	2682	V	—
25 - 26	—	—	—	—	—	Not Occupied	25 - 26	—	—	—	—	—
27	0.75 1	YE YE	200 200	I I	UQ3 UQA	Right Front Speaker 1 [+] Control Right Front Speaker 1 [+] Control	27	1	YE	200	IV	—
28	0.75 1	YE / BK YE / BK	117 117	I I	UQ3 UQA	Right Front Speaker [-] Control 1 Right Front Speaker [-] Control 1	28	1	YE / BK	117	IV	—
29	0	WH	4724	III	—	Right Side-view Camera LVDS (Low Voltage Differential Signaling) Coaxial Signal	29	0	WH	4724	VII	—

X494 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger





Connector Part Information

Harness Type: Front Side Door Door Wiring Harness - Passenger

OEM Connector: 7298-4329-30

Service Connector: Service by Harness - See Part Catalog

Description: 30-Way F 1.2 MCON, 2.8, 6.3 YESC Series(BK)

Connector Part Information

Harness Type: Front Side Door Door Lock Door Wiring Harness - Passenger

OEM Connector: 7297-4331-30

Service Connector: Service by Harness - See Part Catalog

Description: 30-Way M 1.2 MCON, 2.8, 6.3 YESC Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-42 (RD)	No Tool Required
III	Not required	J-35616-4A (PU)	No Tool Required
IV	Not required	J-35616-17 (L-GN)	No Tool Required
V	Not required	J-35616-43 (RD)	No Tool Required
VI	Not required	J-35616-5 (PU)	No Tool Required

X494 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	GY / VT	4638	I	—	LED Backlight Dimming Control Right Front Door	1	0.35	GY / VT	4638	IV	—
2	0.35	YE / BU	4245	I	—	Right Front Door Lock Indicator Control	2	0.35	YE / BU	4245	IV	—
3	0.35	VT	4259	I	—	Right Front Door Lock Status Signal	3	0.35	VT	4259	IV	—
4	0.35	YE / VT	2773	I	—	Right Front Door Lock Switch Lock Control	4	0.35	YE / VT	2773	IV	—

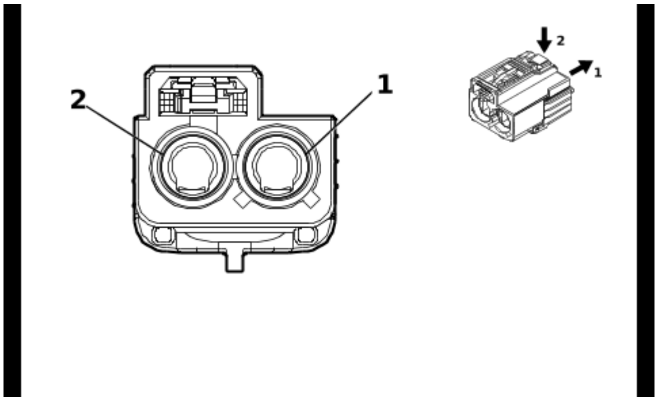
X494 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
5	0.35	BN / VT	2774	I	—	Right Front Door Lock Switch Unlock Control	5	0.35	BN / VT	2774	IV	—
6	0.35	GY	1761	I	—	Right Side Object Detection LED Control	6	0.35	GY	1761	IV	—
7	0.35	GN / YE	6134	I	—	Body Control Module LIN Bus 3	7	0.35	GN / YE	6134	IV	—
8	0.35	GY	746	I	—	Right Front Door Ajar Switch Signal	8	0.35	GY	746	IV	—
9 - 12	—	—	—	—	—	Not Occupied	9 - 12	—	—	—	—	—
13	0.5	BN / VT	607	I	—	Right Outside Rearview Mirror Heater Control	13	0.5	BN / VT	607	IV	—
14 - 15	—	—	—	—	—	Not Occupied	14 - 15	—	—	—	—	—
16	0.35	YE / VT	2796	I	—	Right Front Mirror Motor Up [+] Down [-] Control	16	0.35	YE / VT	2796	IV	—
17	0.35	WH	2797	I	—	Right Front Mirror Motor Common Control	17	0.35	WH	2797	IV	—
18	0.35	GN / BK	2798	I	—	Right Front Mirror Motor Right [+] Left [-] Control	18	0.35	GN / BK	2798	IV	—
19	0.35	BU / YE	2795	I	—	Right Front Mirror Position Sensor Up [+] Down [-] Signal	19	0.35	BU / YE	2795	IV	—
20	0.35	YE / RD	2799	I	—	Right Front Mirror Position Sensor High Reference	20	0.35	YE / RD	2799	IV	—
21	0.35	VT / WH	2800	I	—	Right Front Mirror Position Sensor Left [-] Right [+] Signal	21	0.35	VT / WH	2800	IV	—
22	0.35	BK / GN	675	I	—	Right Outside Rearview Mirror Position Sensor Low Reference	22	0.35	BK / GN	675	IV	—
23 - 24	—	—	—	—	—	Not Occupied	23 - 24	—	—	—	—	—

X494 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
25	2.5	RD / GY	3540	II	—	Battery Positive Voltage	25	2.5	RD / GY	3540	V	—
26	2.5	BK	1250	III	—	Ground	26	2.5	BK	1250	VI	—
27	2	YE / BU	667	III	—	Right Front Window Motor Down Control	27	2	YE / BU	667	VI	—
28	2	GN / GY	666	III	—	Right Front Window Motor Up Control	28	2	GN / GY	666	VI	—
29 - 30	—	—	—	—	—	Not Occupied	29 - 30	—	—	—	—	—

X499B Body Wiring Harness to Instrument Panel Wiring Harness (U2Q)



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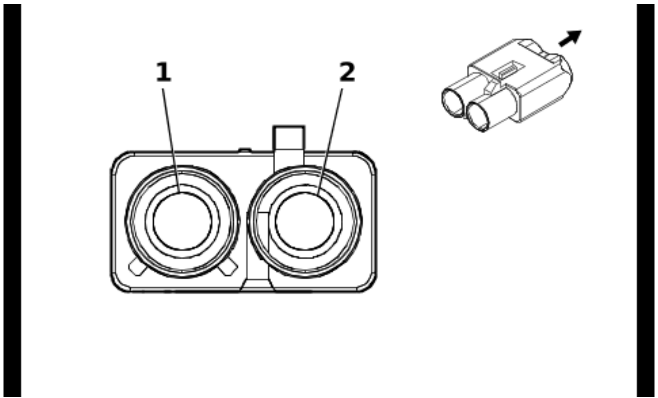


5429382

Connector Part Information

Harness Type: Body Wiring Harness COAX
OEM Connector: 13516431
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way F Coax Type(CU)

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX
OEM Connector: 13515678
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 2-Way M Coax Type(CU)

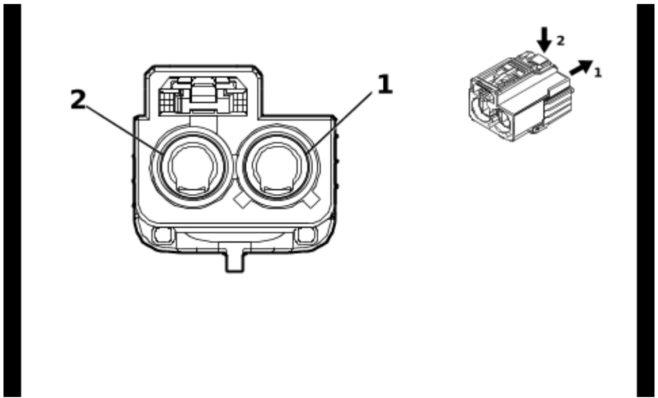
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X499B Body Wiring Harness to Instrument Panel Wiring Harness (U2Q)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	(DAB/DMB) Coaxial Antenna DAB Signal	—	—	Coax Cable	—	I	—

X499C Body Wiring Harness to Instrument Panel Wiring Harness



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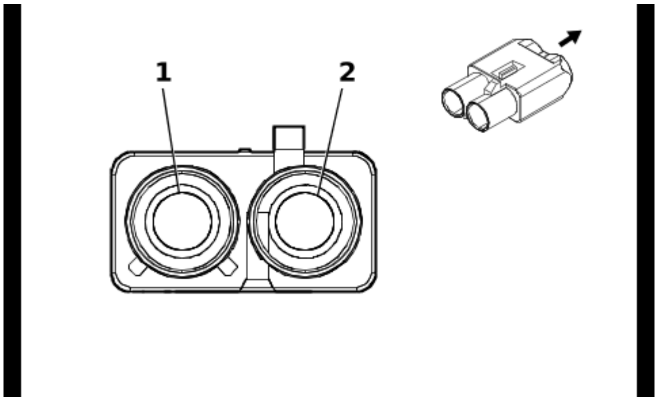


5429382

Connector Part Information

Harness Type: Body Wiring Harness COAX

OEM Connector: 13516431

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 2-Way F Coax Type(CU)

Connector Part Information

Harness Type: Instrument Panel Wiring Harness COAX

OEM Connector: 13515678

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 2-Way M Coax Type(CU)

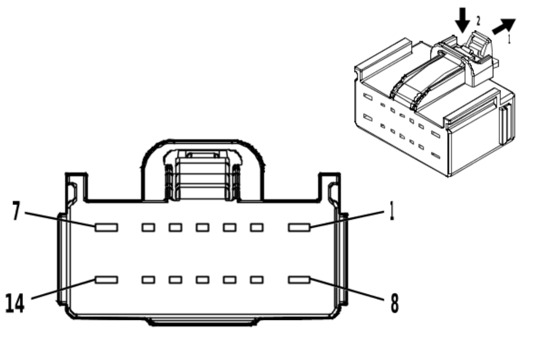
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X499C Body Wiring Harness to Instrument Panel Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	(AM/FM) Antenna RF Signal	—	—	Coax Cable	—	I	—

X500 Roof Wiring Harness to Body Wiring Harness



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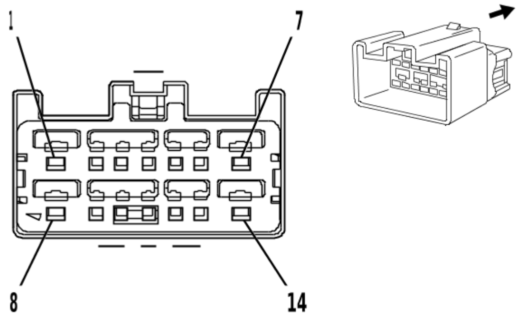


1283905

Connector Part Information

Harness Type: Roof Wiring Harness
OEM Connector: 7289-7630-40
Service Connector: 13513605
Description: 14-Way F 1.5, 2.8 YESC Series(GY)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 7282-6447-40
Service Connector: 88956523
Description: 14-Way M 1.5, 2.8 YESC Series(L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	13575850	J-35616-2A (GY)	J-38125-557
II	84962855	J-35616-4A (PU)	J-38125-11A
III	13578907	J-35616-3 (GY)	J-38125-215A
IV	13578908	J-35616-5 (PU)	J-38125-11A

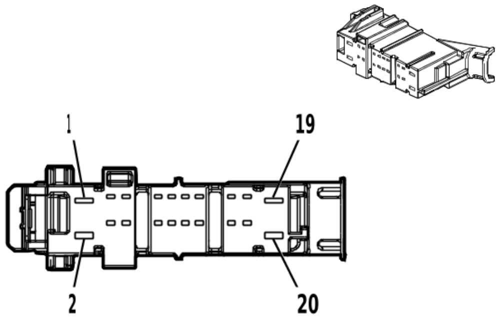
X500 Roof Wiring Harness to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	1.5	RD / YE	2340	II	—	Battery Positive Voltage	1	1.5	RD / YE	2340	IV	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.35	GN / BK	2515	I	—	Telematics Switch Supply Voltage	3	0.35	GN / BK	2515	III	—
4	0.35	GN / WH	2514	I	—	Telematics Switch Signal	4	0.35	GN / WH	2514	III	—
5	0.35	YE / VT	2516	I	—	Telematics Switch Green LED Indicator Control	5	0.35	YE / VT	2516	III	—
6	0.35	BN / WH	2517	I	—	Telematics Switch Red LED Indicator Control	6	0.35	BN / WH	2517	III	—
7	—	—	—	—	—	Not Occupied	7	—	—	—	—	—
8	1.5	BK	1850	II	—	Ground	8	1.5	BK	4250	IV	—

X500 Roof Wiring Harness to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5 0.35	BK / WH BK / WH	451 451	I I	(UE1/ UER) - (UE1/ UER)	Signal Ground Signal Ground	9	0.5	BK / WH	451	III	—
10	0.35	RD / VT	1640	I	—	Battery Positive Voltage	10	0.35	RD / VT	1640	III	—
11	—	—	—	—	—	Not Occupied	11	—	—	—	—	—
12	0.35	BK / BN	654	I	—	Cellular Telephone Microphone Low Reference	12	0.35	BK / BN	654	III	—
13	0.35	BU	655	I	—	Cellular Telephone Microphone Signal	13	0.35	BU	655	III	—
14	—	—	—	—	—	Not Occupied	14	—	—	—	—	—

X503 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness



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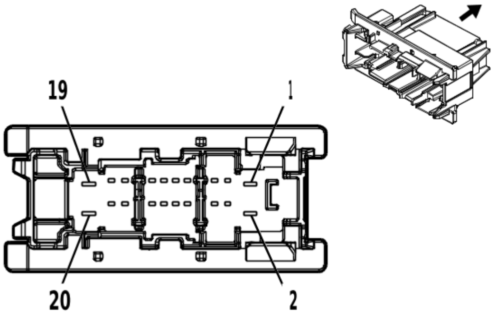


4663657

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Left
OEM Connector: 6098-8196
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.2 MCON, 2.8 MCP Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 6098-8887
Service Connector: 13527239
Description: 20-Way M 1.2 MCON, 2.8 MCP Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	13586064	J-35616-5 (PU)	J-38125-212
IV	84616651	J-35616-13 (BU)	J-38125-215A

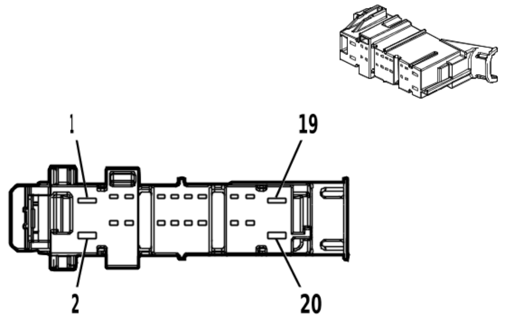
X503 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD / BU	1240	II	—	Battery Positive Voltage	1	2.5	RD / BU	1240	III	—
2	2.5	BK	1150	II	—	Ground	2	2.5	BK	3750	III	—
3	0.75	BU / YE	1091	I	—	Left Rear Door Lock Actuator Lock Control	3	0.75	BU / YE	1091	IV	—
4	0.75	WH	2679	I	—	Lock Actuators Unlock Control 1	4	0.75	WH	2679	IV	—
5 - 6	—	—	—	—	—	Not Occupied	5 - 6	—	—	—	—	—
7	0.35	GN / GY	6135	I	—	Body Control Module LIN Bus 4	7	0.35	GN / GY	6135	IV	—
8 - 11	—	—	—	—	—	Not Occupied	8 - 11	—	—	—	—	—
12	0.75 0.5	GN / BK GN / BK	116 116	I I	UQ3 UQA	Left Rear Speaker [-] Control Left Rear Speaker [-] Control	12	0.75 0.5	GN / BK GN / BK	116 116	IV IV	UQ3 UQA

X503 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
13	0.75 0.5	GN GN	199 199	I I	UQ3 UQA	Left Rear Speaker [+] Control Left Rear Speaker [+] Control	13	0.75 0.5	GN GN	199 199	IV IV	UQ3 UQA
14 - 20	—	—	—	—	—	Not Occupied	14 - 20	—	—	—	—	—

X604 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness



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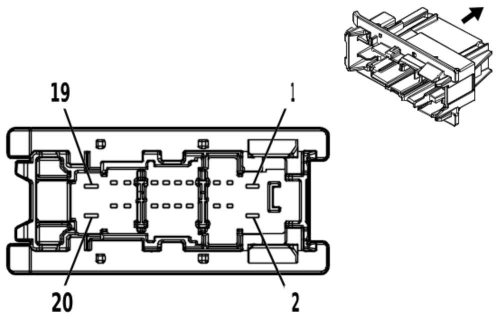


4663657

Connector Part Information

Harness Type: Rear Side Door Door Wiring Harness - Right
OEM Connector: 6098-8196
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 1.2 MCON, 2.8 MCP Series(BK)

Connector Part Information

Harness Type: Body Wiring Harness
OEM Connector: 6098-8887
Service Connector: 13527239
Description: 20-Way M 1.2 MCON, 2.8 MCP Series(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-35 (VT)	No Tool Required
III	13586064	J-35616-5 (PU)	J-38125-212
IV	84616651	J-35616-13 (BU)	J-38125-215A

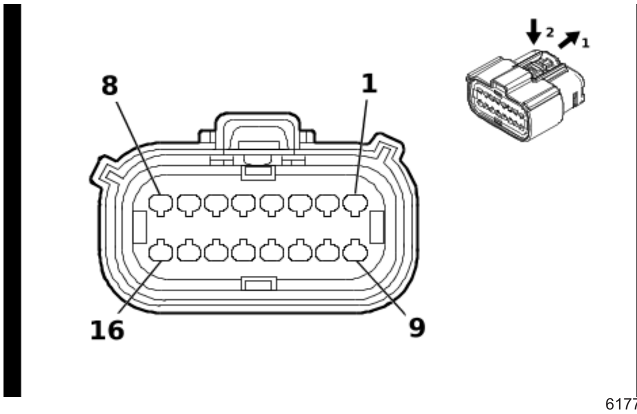
X604 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	RD / GY	3540	II	—	Battery Positive Voltage	1	2.5	RD / GY	3540	III	—
2	2.5	BK	1250	II	—	Ground	2	2.5	BK	4250	III	—
3	0.75	VT / WH	1094	I	—	Right Rear Door Lock Actuator Lock Control	3	0.75	VT / WH	1094	IV	—
4	0.75	GY / BK	2680	I	—	Lock Actuators Unlock Control 2	4	0.75	GY / BK	2680	IV	—
5 - 6	—	—	—	—	—	Not Occupied	5 - 6	—	—	—	—	—
7	0.35	GN / GY	6135	I	—	Body Control Module LIN Bus 4	7	0.35	GN / GY	6135	IV	—
8 - 11	—	—	—	—	—	Not Occupied	8 - 11	—	—	—	—	—
12	0.75 0.5	BU / BK BU / BK	115 115	I I	UQ3 UQA	Right Rear Speaker [-] Control Right Rear Speaker [-] Control	12	0.75 0.5	BU / BK BU / BK	115 115	IV IV	UQ3 UQA

X604 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
13	0.75 0.5	WH WH	46 46	I I	UQ3 UQA	Right Rear Speaker [+] Control Right Rear Speaker [+] Control	13	0.75 0.5	WH WH	46 46	IV IV	UQ3 UQA
14 - 20	—	—	—	—	—	Not Occupied	14 - 20	—	—	—	—	—

X700 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness



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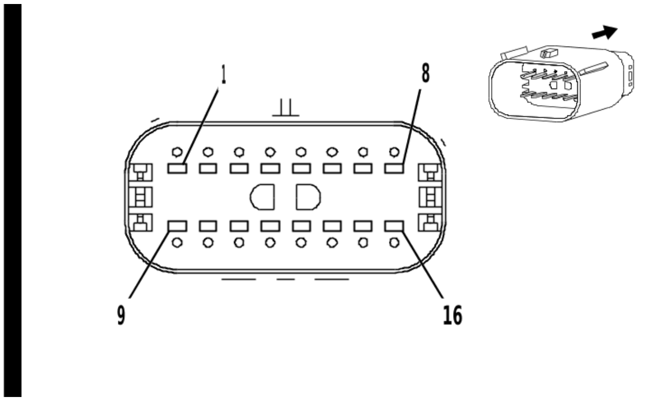


4223713

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 33472-1607
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.5 MX Series, Sealed(L-GY)

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 33482-8602
Service Connector: 84625100
Description: 16-Way M 1.5 MX Series, Sealed(GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	19119395	J-35616-3 (GY)	J-38125-217

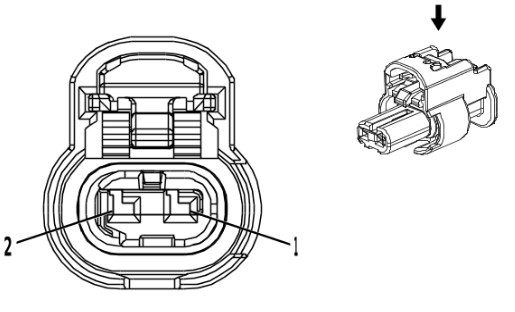
X700 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BU / VT	4101	I	—	AUTOSAR CAN Bus [+] 4 Serial Data	1	0.5	BU / VT	4101	III	—
2	0.5	WH	4100	I	—	AUTOSAR CAN Bus [-] 4 Serial Data	2	0.5	WH	4100	III	—
3	—	—	—	—	—	Not Occupied	3	—	—	—	—	—
4	0.5	GY / BK	2680	I	—	Lock Actuators Unlock Control 2	4	0.5	GY / BK	2680	III	—
5	0.5	GY / VT	2691	I	—	Rear Closure Actuator Lock Control	5	0.5	GY / VT	2691	III	—
6	0.5	YE	2375	I	—	Left Rear Outer Parking Assist Sensor Signal	6	0.5	YE	2375	III	—
7	0.75	BK / GY	2379	II	—	Object Sensor Low Reference	7	0.75	BK / GY	2379	III	—
8	0.75	BN / WH	2374	II	—	Object Sensor Voltage Reference	8	0.75	BN / WH	2374	III	—

X700 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	0.5	RD / BN	4940	I	—	Battery Positive Voltage	9	0.5	RD / BN	4940	III	—
10	0.5	BK / WH	751	I	—	Signal Ground	10	0.5	BK / WH	751	III	—
11	0.5	GN / YE	6846	I	—	Rear License Plate Lamp Control	11	0.5	GN / YE	6846	III	—
12	0.5	BK	750	I	—	Ground	12	0.5	BK	750	III	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	YE / BU	2376	I	—	Left Rear Middle Parking Assist Sensor Signal	14	0.5	YE / BU	2376	III	—
15	0.5	YE / WH	2377	I	—	Right Rear Middle Parking Assist Sensor Signal	15	0.5	YE / WH	2377	III	—
16	0.5	YE / VT	2378	I	—	Right Rear Outer Parking Assist Sensor Signal	16	0.5	YE / VT	2378	III	—

X708 Chassis Rear Wiring Harness to Chassis Wiring Harness



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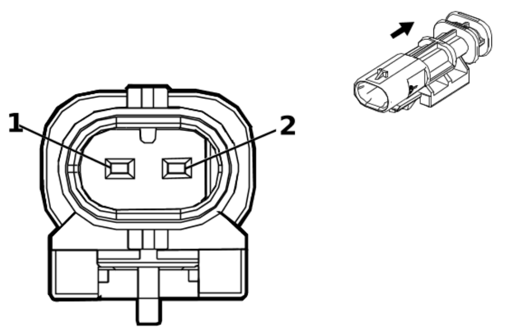


5200722

Connector Part Information

Harness Type: Chassis Rear Wiring Harness
OEM Connector: 1-2296694-2
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 2203314-2
Service Connector: 86526153
Description: 2-Way M 1.2 MCON Series, Sealed(BK)

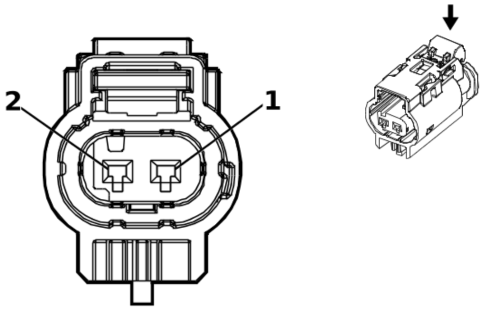
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

X708 Chassis Rear Wiring Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	850	I	—	Ground	1	0.5	BK	750	II	—
2	0.5	BN / GN	4246	I	—	Identification Lamp Control	2	0.5	BN / GN	4246	II	—

X777 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness (- G94)



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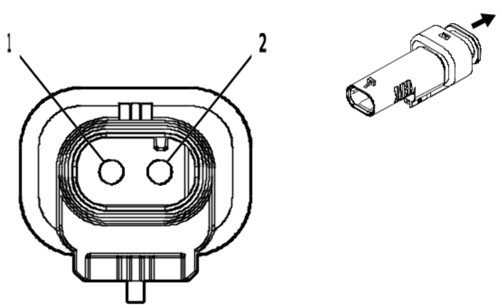


4992757

Connector Part Information

Harness Type: Chassis Rear Wiring Harness Extension Harness

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F

Connector Part Information

Harness Type: Chassis Wiring Harness

OEM Connector: 10094251

Service Connector: 19371200

Description: 2-Way M 1.2 MLK Series, Sealed(GY)

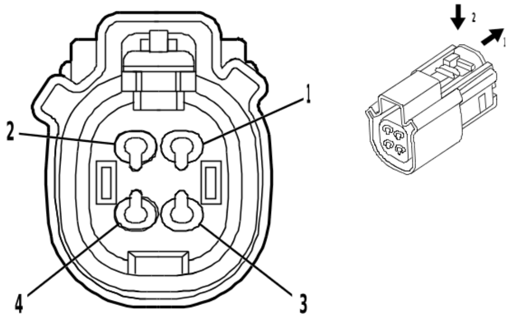
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required
II	Not required	J-35616-13 (BU)	No Tool Required

X777 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness (- G94)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GN / YE	1616	I	—	Rear Brake Pad Wear Sensor Signal	1	0.5	GN / YE	1616	II	—
2	0.5	BK / WH	2051	I	—	Signal Ground	2	0.5	BK / WH	2051	II	—

X788 Chassis Wiring Harness to Chassis Rear Wiring Harness Extension Harness (G94)



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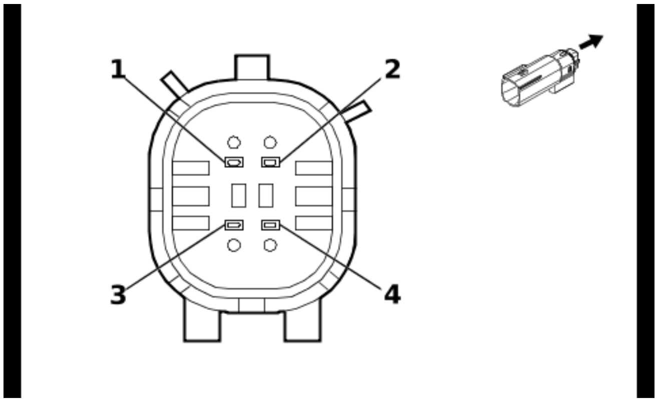


5604894

Connector Part Information

Harness Type: Chassis Wiring Harness

OEM Connector: 33472-4007

Service Connector: 19368970

Description: 4-Way F 1.5 MX Series, Sealed(GY)

Connector Part Information

Harness Type: Chassis Rear Wiring Harness Extension Harness

OEM Connector: 33482-4002

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way M 1.5 MX Series, Sealed(GY)

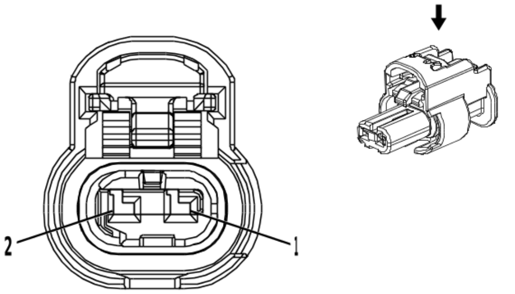
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-14 (GN)	No Tool Required
II	Not required	J-35616-2A (GY)	No Tool Required
III	Not required	J-35616-3 (GY)	No Tool Required

X788 Chassis Wiring Harness to Chassis Rear Wiring Harness Extension Harness (G94)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.75	VT / BN	7258	II	—	Rear Differential Lock Actuator Control	1	0.75	VT / BN	7258	III	—
2	0.75	GY / BK	7253	II	—	Rear Differential Lock Actuator Low Control	2	0.75	GY / BK	7253	III	—
3	0.5	GN / YE	1616	I	—	Rear Brake Pad Wear Sensor Signal	3	0.75	GN / YE	1616	III	—
4	0.5	BK / WH	2051	I	—	Signal Ground	4	0.75	BK / WH	1751	III	—

X808 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness



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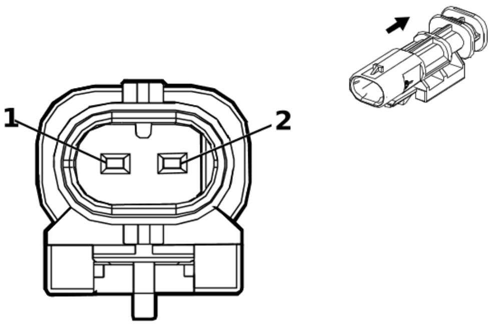

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Connector Part Information

Harness Type: Chassis Rear Wiring Harness Extension Harness

OEM Connector: 1-2296694-2

Service Connector: Service by Harness - See Part Catalog

Description: 2-Way F 1.2 MCON Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Wiring Harness

OEM Connector: 2203314-2

Service Connector: 86526153

Description: 2-Way M 1.2 MCON Series, Sealed(BK)

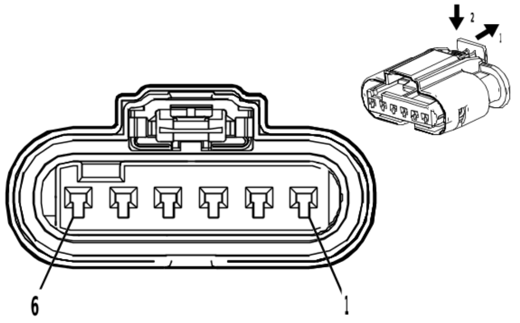
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

X808 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	850	I	—	Ground	1	0.5	BK	850	II	—
2	0.5	BN / GN	4246	I	—	Identification Lamp Control	2	0.5	BN / GN	4246	II	—

X820 Body Rear Wiring Harness to Chassis Wiring Harness (KC9 / KCA)



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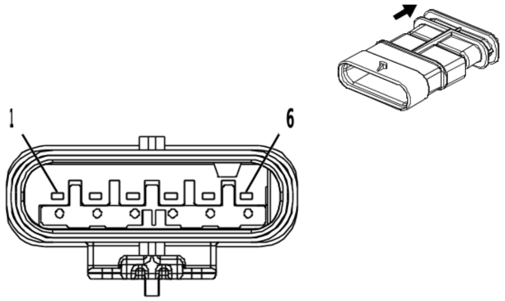


4561098

Connector Part Information

Harness Type: Body Rear Wiring Harness
OEM Connector: 34900-6219
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.2 MCON-LL Series, Sealed(BK)

Connector Part Information

Harness Type: Chassis Wiring Harness
OEM Connector: 34899-6120
Service Connector: 86526152
Description: 6-Way M 1.2 MCON Series, Sealed(YE)

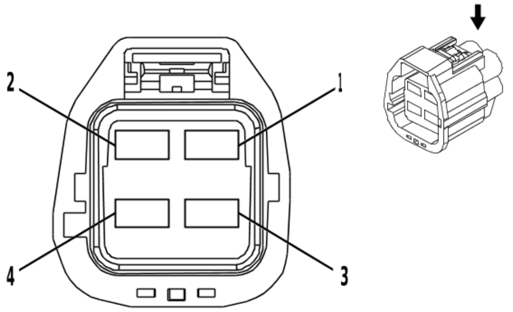
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-12 (BU)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

X820 Body Rear Wiring Harness to Chassis Wiring Harness (KC9 / KCA)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK	850	I	—	Ground	1	0.5	BK	850	II	—
2	0.5	VT / RD	4049	I	—	AC Power Outlet Sensor High Reference	2	0.5	VT / RD	4049	II	—
3	0.5	GN / BN	2266	I	—	DC/AC Inverter Control 2	3	0.5	GN / BN	2266	II	—
4	0.75	BK	10119	I	—	AC Outlet 2 Low Reference	4	0.75	WH	10119	II	—
5	0.75	BK / WH	10120	I	—	AC Outlet 2 Phase A Control	5	0.75	BK / WH	10120	II	—
6	0.75	RD / WH	10121	I	—	AC Outlet 2 Phase B Control	6	0.75	RD / WH	10121	II	—

X904A Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness



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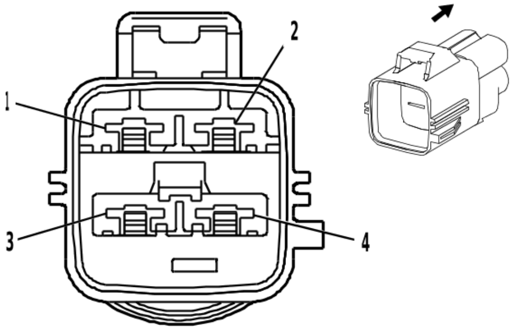


1853524

Connector Part Information

Harness Type: Chassis Rear Wiring Harness Extension Harness

OEM Connector: 7283-3601-10

Service Connector: Service by Harness - See Part Catalog

Description: 4-Way F 6.3 Series, Sealed(GY)

Connector Part Information

Harness Type: Chassis Wiring Harness

OEM Connector: 7288-3029-10

Service Connector: 19371198

Description: 4-Way M 6.3 Series, Sealed(GY)

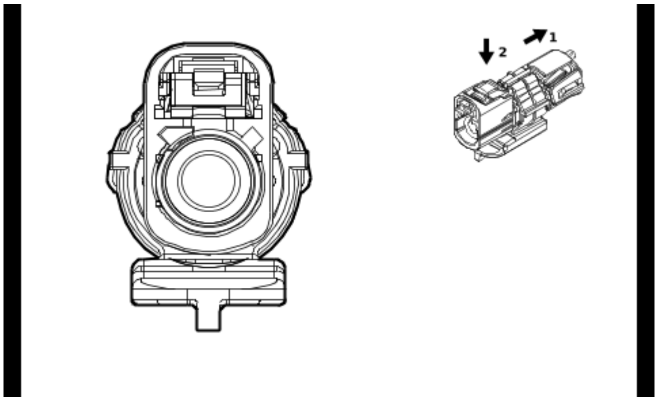
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-42 (RD)	No Tool Required
II	Not required	J-35616-43 (RD)	No Tool Required

X904A Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	WH	2001	I	—	Left Park Brake Motor Apply Control	1	5	WH	2001	II	—
2	2.5	GY / BK	4369	I	—	Left Park Brake Motor Low Reference	2	5	GY / BK	4369	II	—
3	2.5	GN / VT	1988	I	—	Right Park Brake Motor Apply Control	3	5	GN / VT	1988	II	—
4	2.5	GY	4368	I	—	Right Park Brake Motor Low Reference	4	5	GY	4368	II	—

X933 Chassis Wiring Harness to Rear Object Alarm Sensor Wiring Harness



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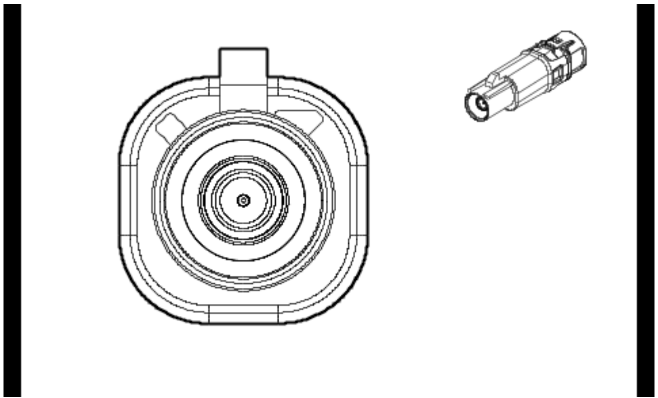


5295025

Connector Part Information

Harness Type: Chassis Wiring Harness COAX

OEM Connector: 13529796

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type, Sealed(BK)

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness COAX

OEM Connector: 13517379

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way M Coax Type(BK)

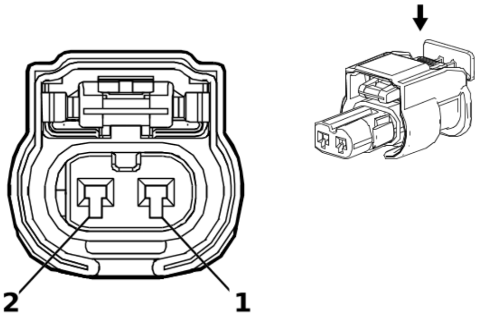
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

X933 Chassis Wiring Harness to Rear Object Alarm Sensor Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	Rear Vision Camera Co-axial Video Signal	—	—	Coax Cable	—	I	—

X950 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness



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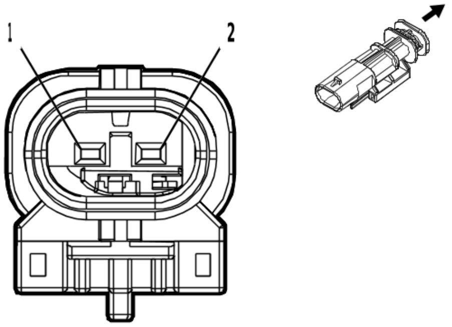


4994410

Connector Part Information

Harness Type: Liftgate Jumper Wiring Harness
OEM Connector: 34900-2121
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCON Series, Sealed(BK)

Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness
OEM Connector: 34899-2081
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MCON Series, Sealed(GY)

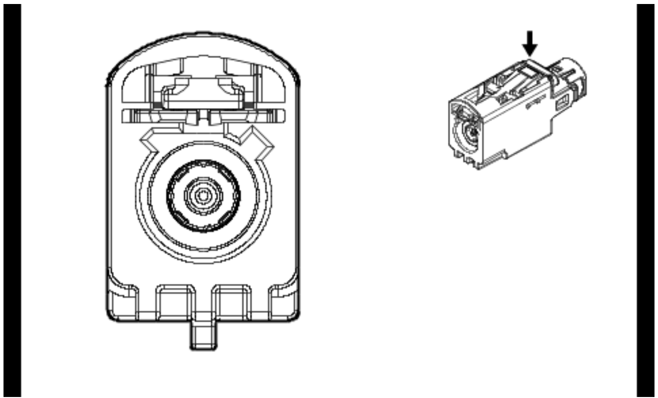
Terminal Part Information

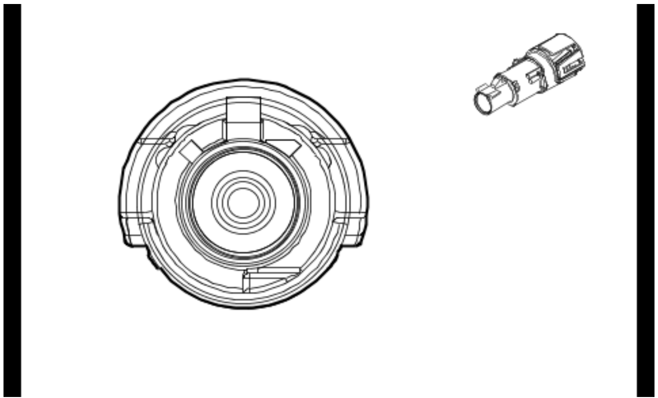
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	J-35616-16 (L-GN)	No Tool Required
II	Not required	J-35616-17 (L-GN)	No Tool Required

X950 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY / VT	2691	I	—	Rear Closure Actuator Lock Control	1	0.5	GY / VT	2691	II	—
2	0.5	GY / BK	2680	I	—	Lock Actuators Unlock Control 2	2	0.5	GY / BK	2680	II	—

X955 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness





Connector Part Information

Harness Type: Rear Object Alarm Sensor Wiring Harness COAX

OEM Connector: 13517364

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way F Coax Type(BK)

Connector Part Information

Harness Type: Liftgate Jumper Wiring Harness COAX

OEM Connector: 13516806

Service Connector: Service by Cable Assembly — See Part Catalog

Description: 1-Way M Coax Type, Sealed(BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool
I	Not required	No Tool Required	No Tool Required

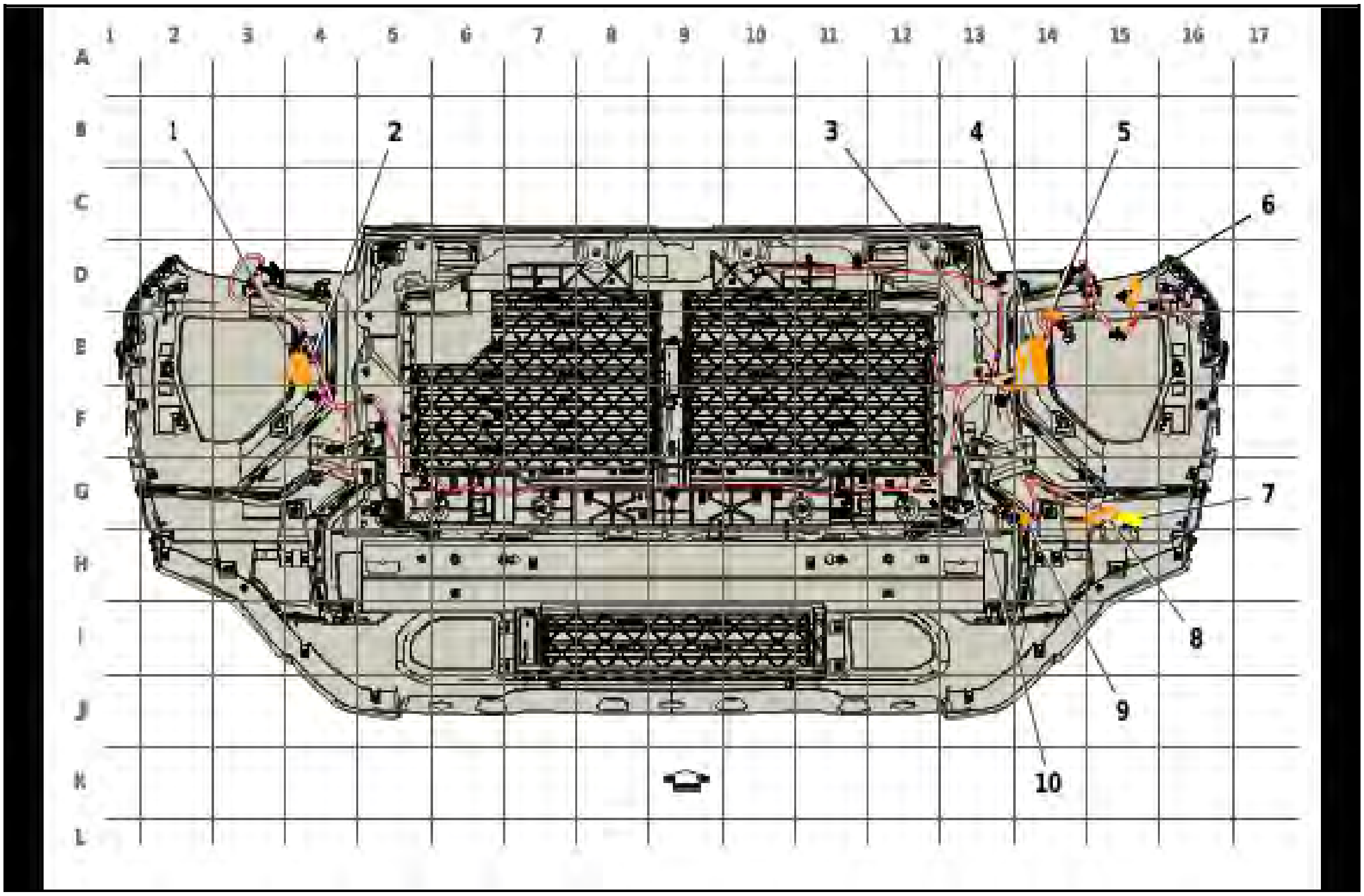
X955 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
—	—	Coax Cable	—	I	—	Rear Vision Camera Co-axial Video Signal	—	—	Coax Cable	—	I	—

Electrical Component Locator and Harness Routing Views

Schematic and Routing Diagrams

Harness Routing Views (Forward Lamp Harness Routing - Front Fascia)



6178572

Items

(1) X150 Body Wiring Harness to Forward Lamp Wiring Harness

(2) J102 Forward Lamp Wiring Harness

(3) J104 Forward Lamp Wiring Harness

(4) X250R Body Wiring Harness to Forward Lamp Wiring Harness

(5) X156 Body Wiring Harness to Forward Lamp Wiring Harness (UV2/UXA)

(6) X250J Windshield Washer Pump Extension Wiring Harness to Forward Lamp Wiring Harness

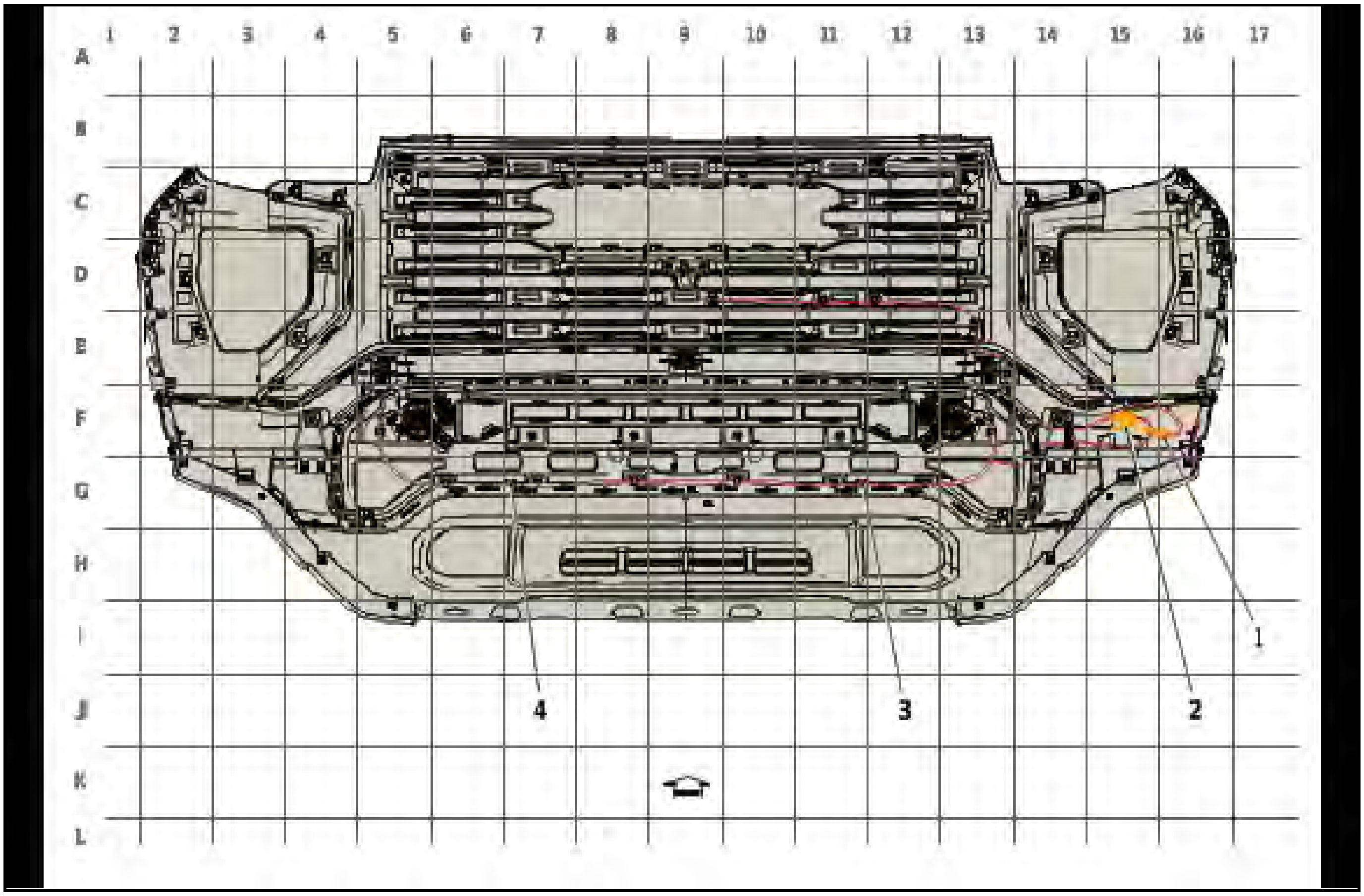
(7) X195 Forward Lamp Wiring Harness to Front View Camera Switch Wiring Harness

(8) X260 Front Object Alarm Sensor Wiring Harness to Forward Lamp Wiring Harness

(9) X250A Radiator Extension Harness to Forward Lamp Wiring Harness

(10) J103 Forward Lamp Wiring Harness

Harness Routing Views (Front Fascia Harness Routing)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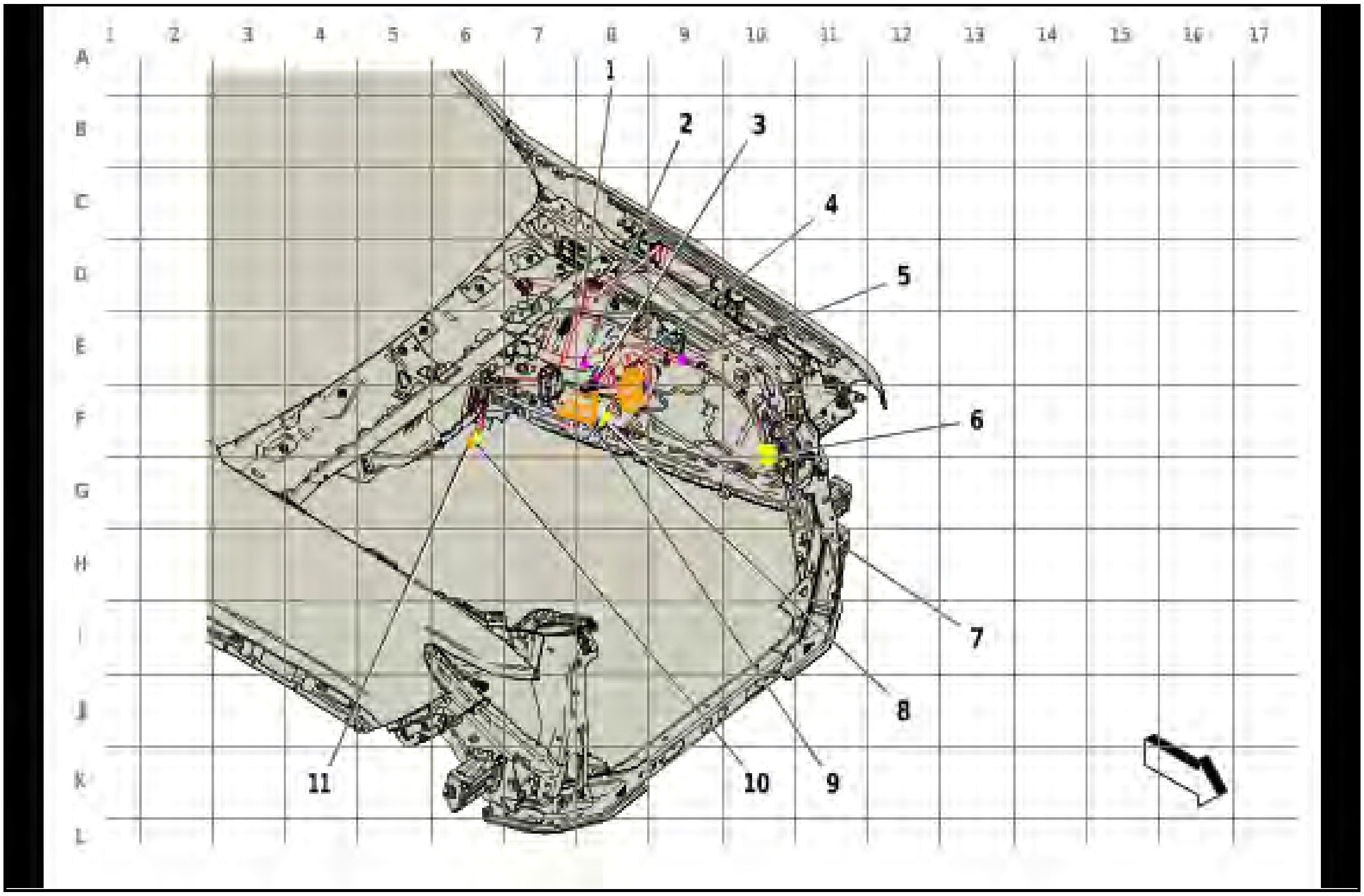
6178573

Items

(1)	X195 Forward Lamp Wiring Harness to Front View Camera Switch Wiring Harness
(2)	X260 Front Object Alarm Sensor Wiring Harness to Forward Lamp Wiring Harness
(3)	J100 Front Object Alarm Sensor Wiring Harness (T40)
(4)	J101 Front Object Alarm Sensor Wiring Harness

Harness Routing Views (Body Harness Routing - Left Side of Engine Compartment)

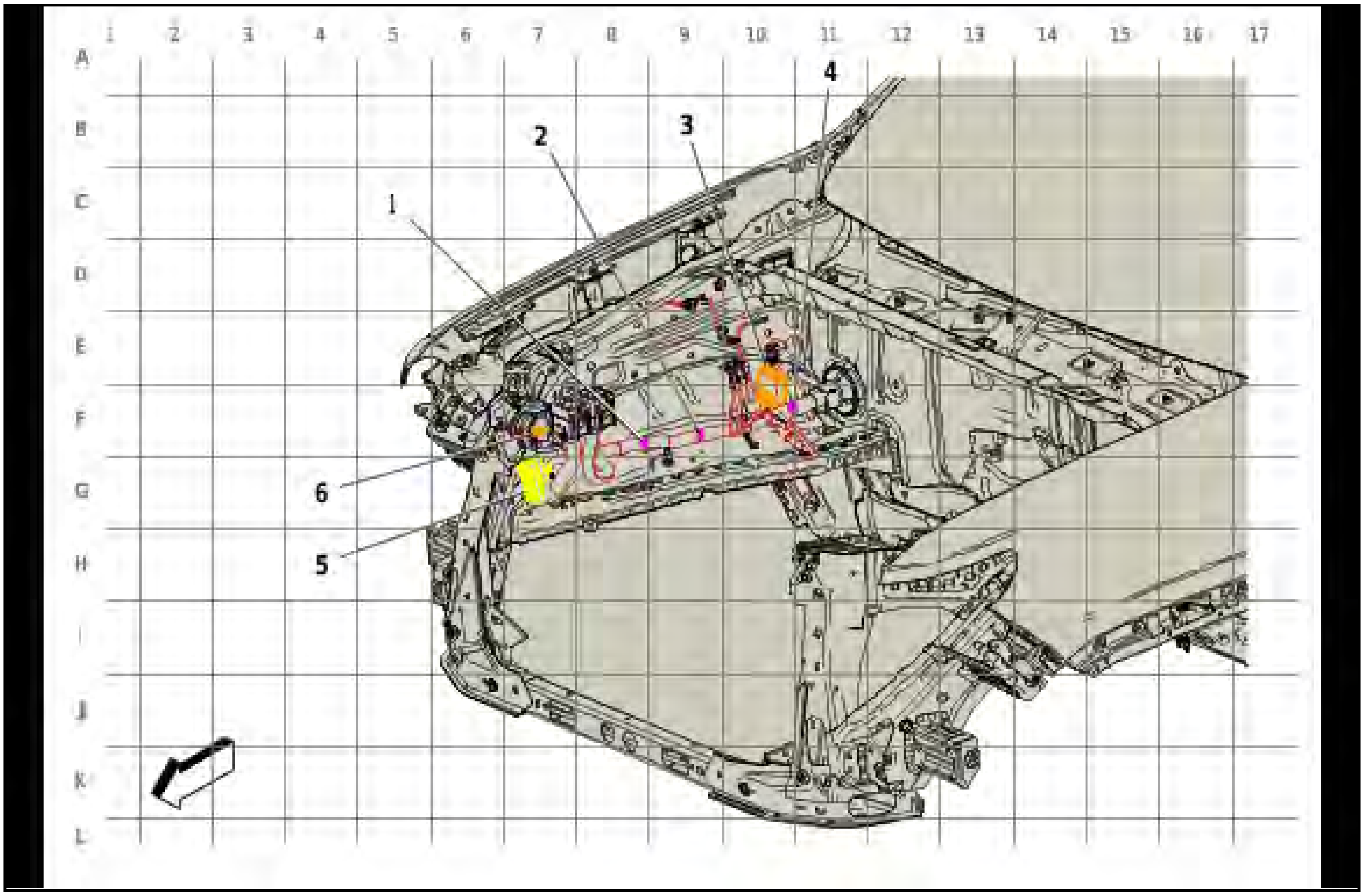


6178574

Items

(1)	J114 Body Wiring Harness
(2)	J113 Body Wiring Harness
(3)	J112 Body Wiring Harness
(4)	J110 Body Wiring Harness
(5)	J111 Body Wiring Harness
(6)	X150 Body Wiring Harness to Forward Lamp Wiring Harness
(7)	X100 Chassis Wiring Harness to Body Wiring Harness
(8)	X199 Chassis Wiring Harness to Body Wiring Harness
(9)	X101 Body Wiring Harness to Chassis Wiring Harness
(10)	X384 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)
(11)	X383 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)

Harness Routing Views (Body Harness Routing - Right Side of Engine Compartment)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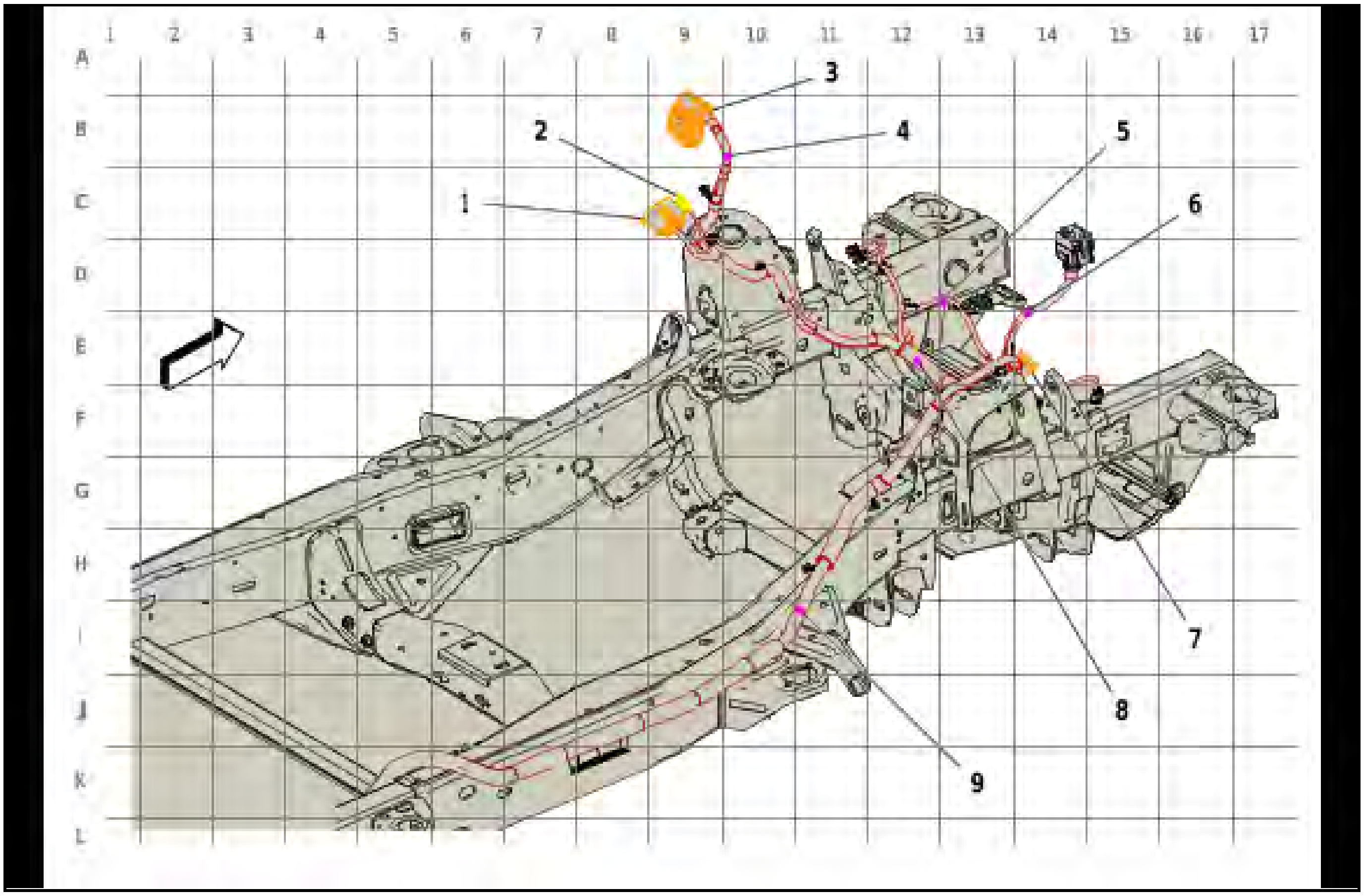
6178575

Items

(1)	J107 Body Wiring Harness
(2)	J106 Body Wiring Harness
(3)	X201 Engine Wiring Harness to Body Wiring Harness
(4)	J105 Body Wiring Harness
(5)	X250R Body Wiring Harness to Forward Lamp Wiring Harness
(6)	X156 Body Wiring Harness to Forward Lamp Wiring Harness (UV2/UXA)

Harness Routing Views (Chassis Harness Routing - Front)



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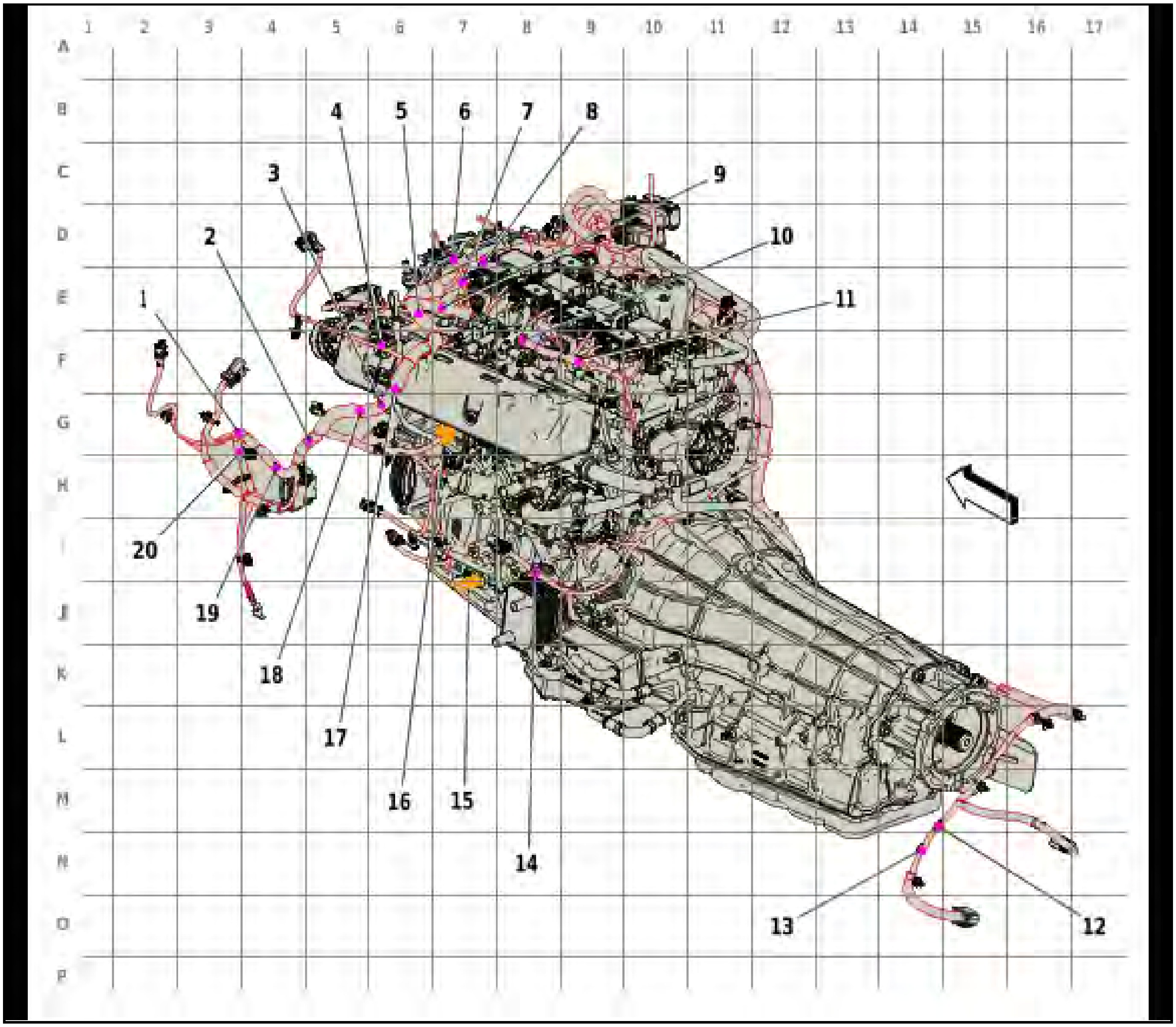
Items

(1)	X101 Body Wiring Harness to Chassis Wiring Harness
(2)	X199 Chassis Wiring Harness to Body Wiring Harness
(3)	X100 Chassis Wiring Harness to Body Wiring Harness
(4)	J109 Chassis Wiring Harness
(5)	J108 Chassis Wiring Harness
(6)	J115 Chassis Wiring Harness
(7)	X204 Engine Wiring Harness to Chassis Wiring Harness
(8)	X107 Chassis Wiring Harness to Power Steering Wiring Harness
(9)	J116 Chassis Wiring Harness

Harness Routing Views (Engine Harness Routing - Left)

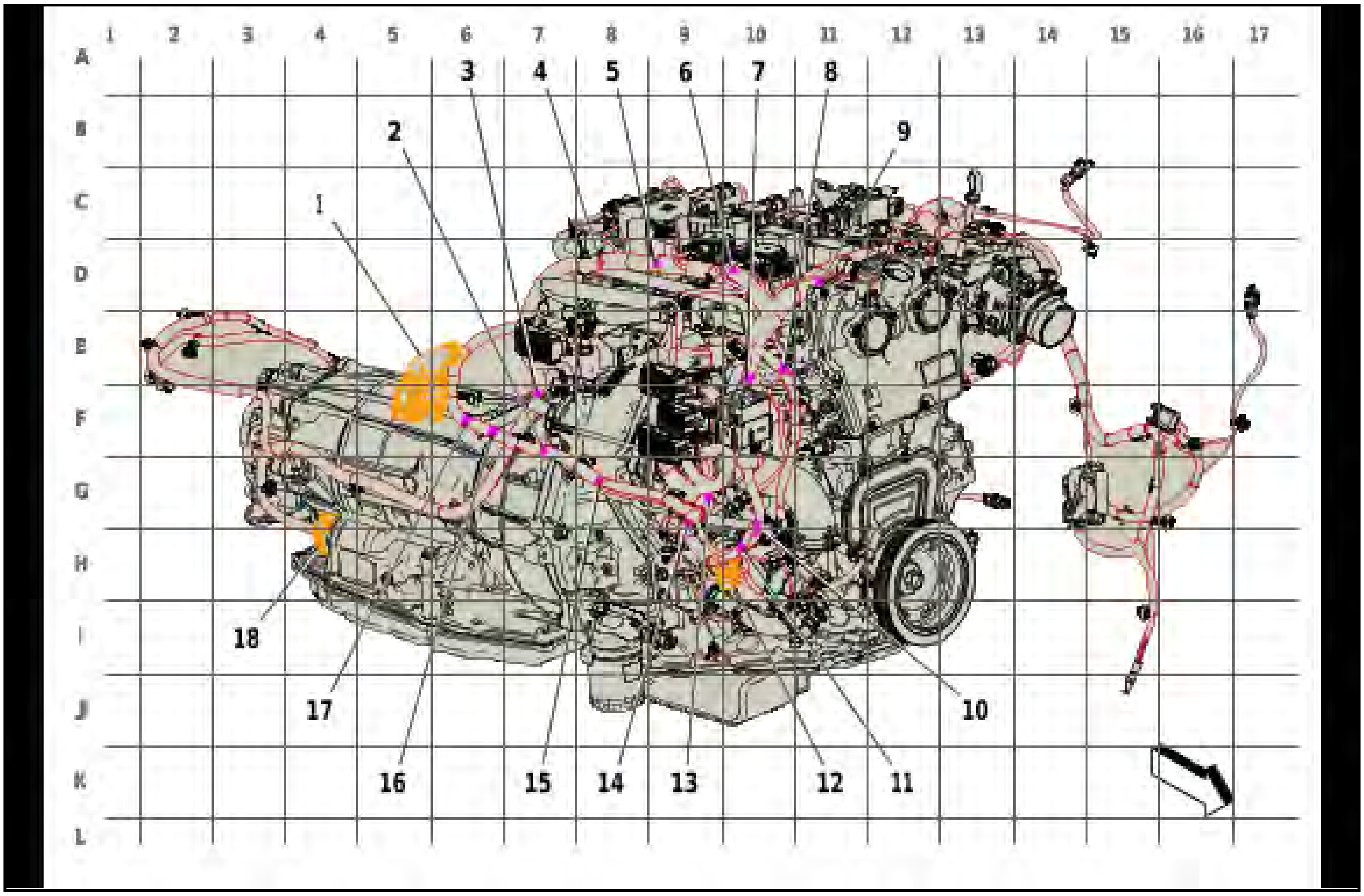


6178577

Items

(1)	J151 Engine Wiring Harness
(2)	J149 Engine Wiring Harness
(3)	J147 Engine Wiring Harness
(4)	J142 Engine Wiring Harness
(5)	J141 Engine Wiring Harness
(6)	J136 Engine Wiring Harness
(7)	J135 Engine Wiring Harness
(8)	J132 Engine Wiring Harness
(9)	J138 Engine Wiring Harness
(10)	J140 Engine Wiring Harness
(11)	J143 Engine Wiring Harness
(12)	J145 Engine Wiring Harness
(13)	J146 Engine Wiring Harness
(14)	J139 Engine Wiring Harness
(15)	X144 Engine Wiring Harness to Oil Pump Flow Control Solenoid Valve Harness
(16)	X160 Engine Wiring Harness to Fuel Injector Wiring Harness
(17)	J144 Engine Wiring Harness
(18)	J148 Engine Wiring Harness
(19)	J150 Engine Wiring Harness
(20)	J152 Engine Wiring Harness

Harness Routing Views (Engine Harness Routing - Right Front)



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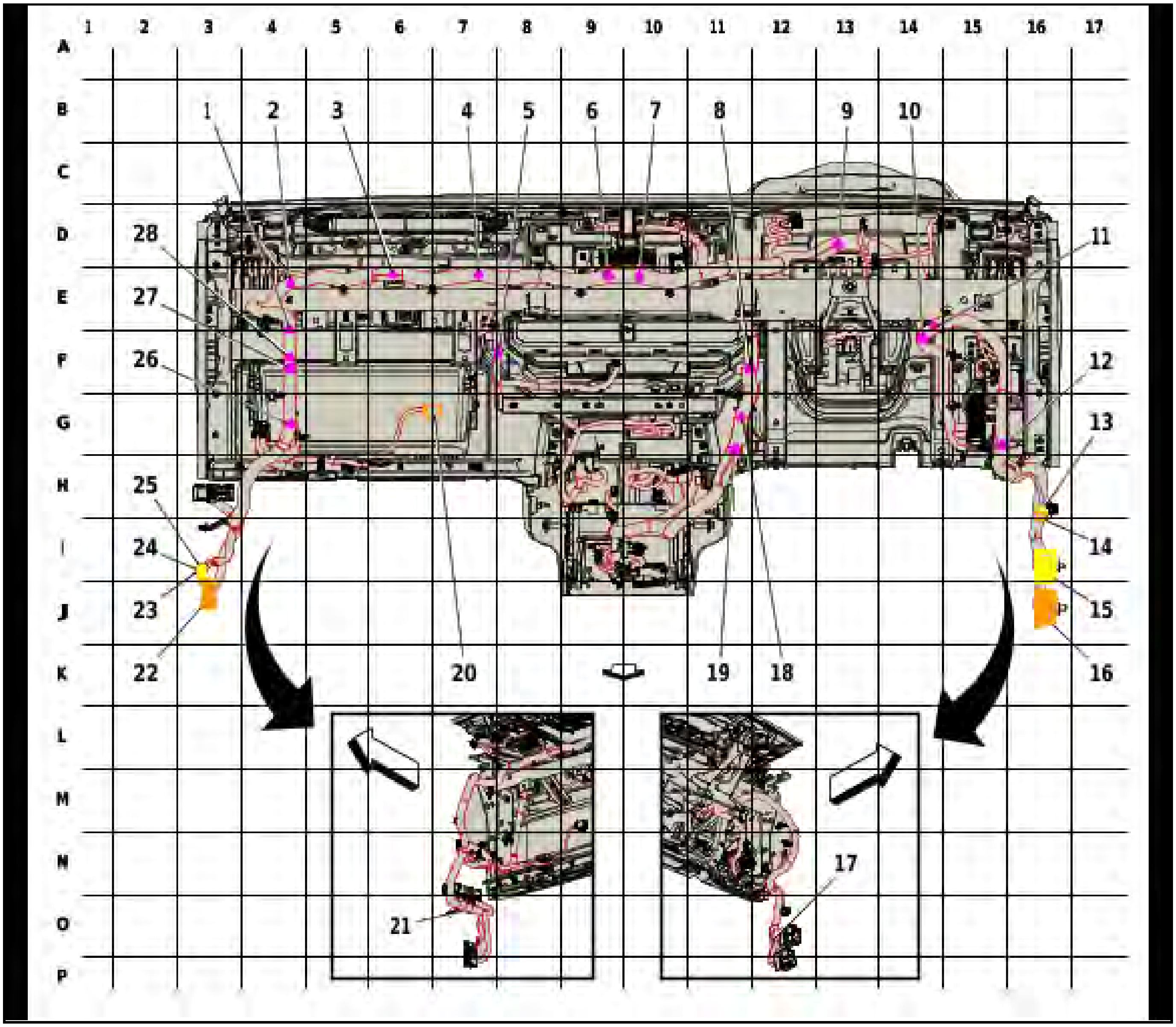
Items

(1)	X201 Engine Wiring Harness to Body Wiring Harness
(2)	J123 Engine Wiring Harness
(3)	J137 Engine Wiring Harness
(4)	J134 Engine Wiring Harness
(5)	J133 Engine Wiring Harness
(6)	J130 Engine Wiring Harness
(7)	J128 Engine Wiring Harness
(8)	J129 Engine Wiring Harness
(9)	J131 Engine Wiring Harness
(10)	J120 Engine Wiring Harness
(11)	J121 Engine Wiring Harness
(12)	X204 Engine Wiring Harness to Chassis Wiring Harness
(13)	J127 Engine Wiring Harness
(14)	J122 Engine Wiring Harness
(15)	J126 Engine Wiring Harness
(16)	J124 Engine Wiring Harness
(17)	J125 Engine Wiring Harness
(18)	X175 Engine Wiring Harness to Automatic Transmission Wiring Harness

Harness Routing Views (Instrument Panel Harness Routing)



6178579

Items

(1) J227 Instrument Panel Wiring Harness

(2) J228 Instrument Panel Wiring Harness

(3) J225 Instrument Panel Wiring Harness

(4) J224 Instrument Panel Wiring Harness

(5) J223 Instrument Panel Wiring Harness

(6) J222 Instrument Panel Wiring Harness

(7) J219 Instrument Panel Wiring Harness

(8) J214 Instrument Panel Wiring Harness

(9) J211 Instrument Panel Wiring Harness

(10) J210 Instrument Panel Wiring Harness

(11) J209 Instrument Panel Wiring Harness

(12) J208 Instrument Panel Wiring Harness

(13) X380 Instrument Panel Wiring Harness to Body Wiring Harness (UV2/UXA-UVB)

(14) X399 Instrument Panel Wiring Harness to Body Wiring Harness (UVB-UV2)

(15) X300 Body Wiring Harness to Instrument Panel Wiring Harness

(16) X301 Body Wiring Harness to Instrument Panel Wiring Harness

(17) W24 Blunt Cut - Trailer Brakes Provision

(18) J213 Instrument Panel Wiring Harness

(19) J212 Instrument Panel Wiring Harness

(20) X315 Instrument Panel Wiring Harness to Air Conditioning Wiring Harness

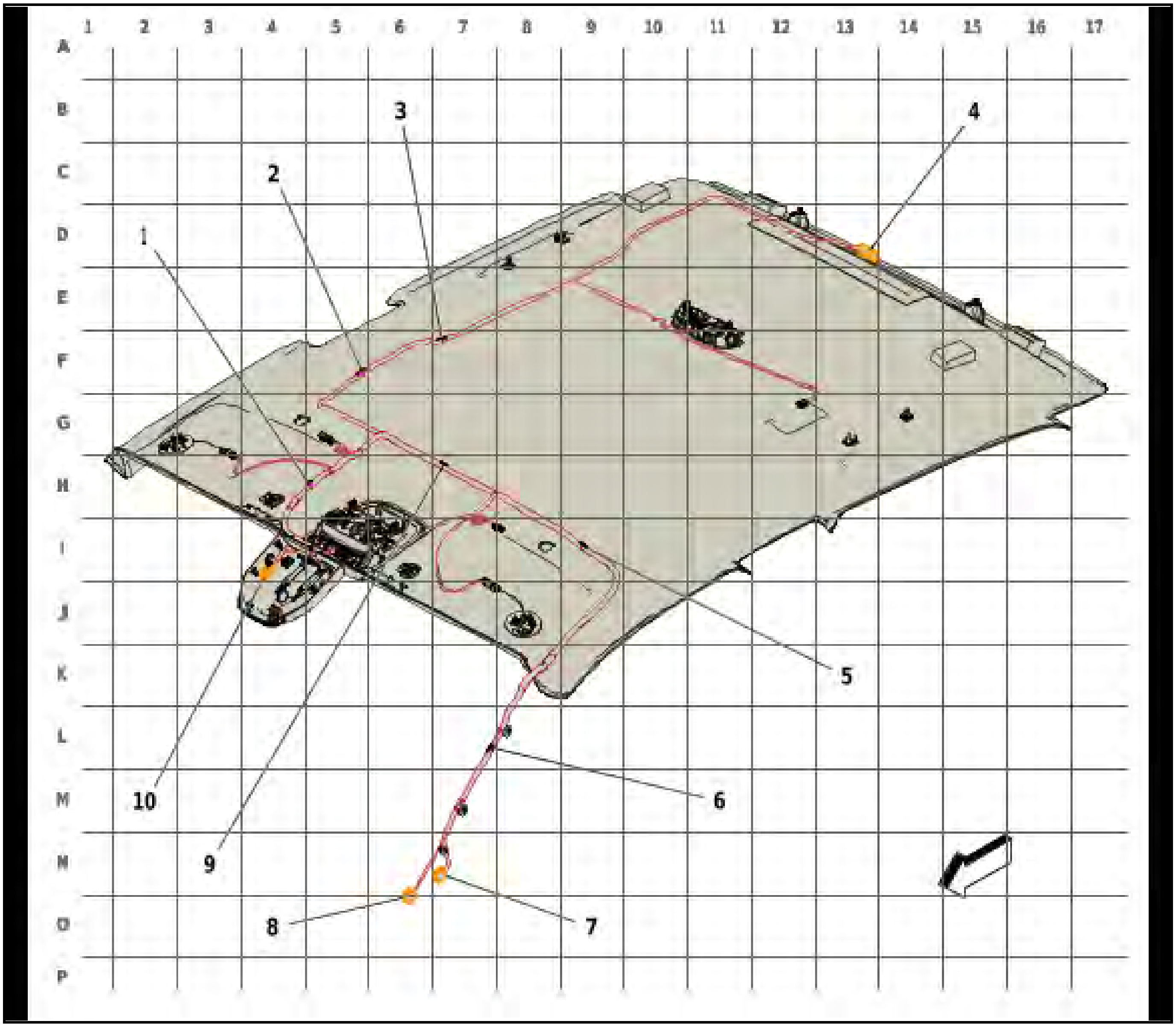
(21) W25 Blunt Cut - Configurable/Accessory Relay

(22) X400 Instrument Panel Wiring Harness to Body Wiring Harness

(23) X499C Body Wiring Harness to Instrument Panel Wiring Harness (U2K)

(24)	X499B Body Wiring Harness to Instrument Panel Wiring Harness (U2Q)
(25)	X499B Body Wiring Harness to Instrument Panel Wiring Harness (U2Q)
(26)	J230 Instrument Panel Wiring Harness
(27)	J229 Instrument Panel Wiring Harness
(28)	J226 Instrument Panel Wiring Harness

Harness Routing Views (Headliner Harness Routing (- CAC))

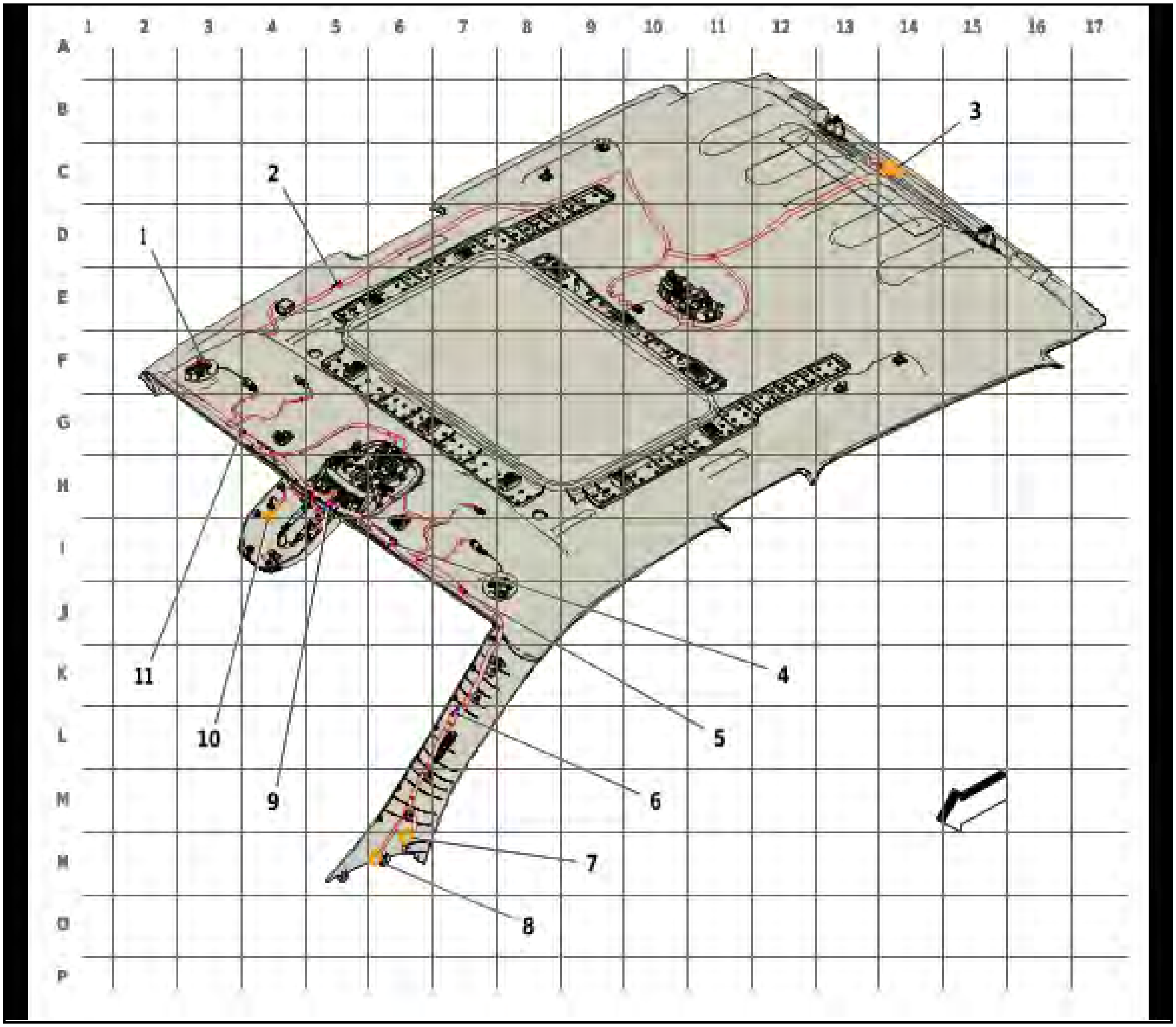


6178580

Items

(1)	J363 Headlining Wiring Harness
(2)	J364 Headlining Wiring Harness
(3)	J365 Headlining Wiring Harness
(4)	X500 Roof Wiring Harness to Body Wiring Harness
(5)	J361 Headlining Wiring Harness
(6)	J360 Headlining Wiring Harness
(7)	X402C Roof Wiring Harness to Body Wiring Harness
(8)	X401 Roof Wiring Harness to Body Wiring Harness
(9)	J362 Headlining Wiring Harness
(10)	X402D Inside Air Moisture and Windshield Temperature Sensor Jumper to Roof Wiring Harness (CJ2)

Harness Routing Views (Headliner Harness Routing (CAC))

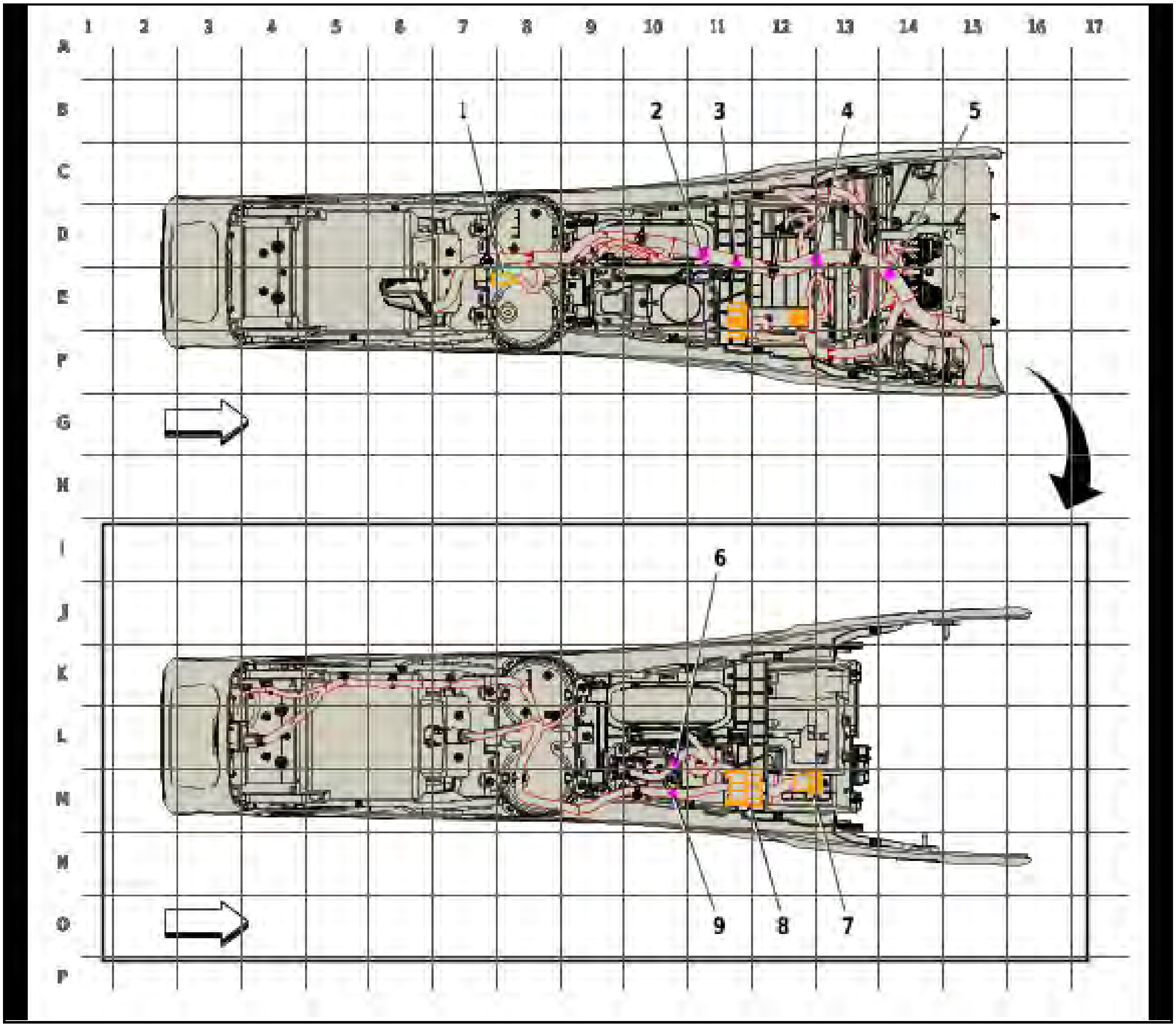


6178581

Items

(1)	J362 Headlining Wiring Harness
(2)	J364 Headlining Wiring Harness
(3)	X500 Roof Wiring Harness to Body Wiring Harness
(4)	J366 Headlining Wiring Harness (CAC)
(5)	J365 Headlining Wiring Harness
(6)	J360 Headlining Wiring Harness
(7)	X402C Roof Wiring Harness to Body Wiring Harness
(8)	X401 Roof Wiring Harness to Body Wiring Harness
(9)	J363 Headlining Wiring Harness
(10)	X402D Inside Air Moisture and Windshield Temperature Sensor Jumper to Roof Wiring Harness (CJ2)
(11)	J361 Headlining Wiring Harness

Harness Routing Views (Floor Console Harness Routing)

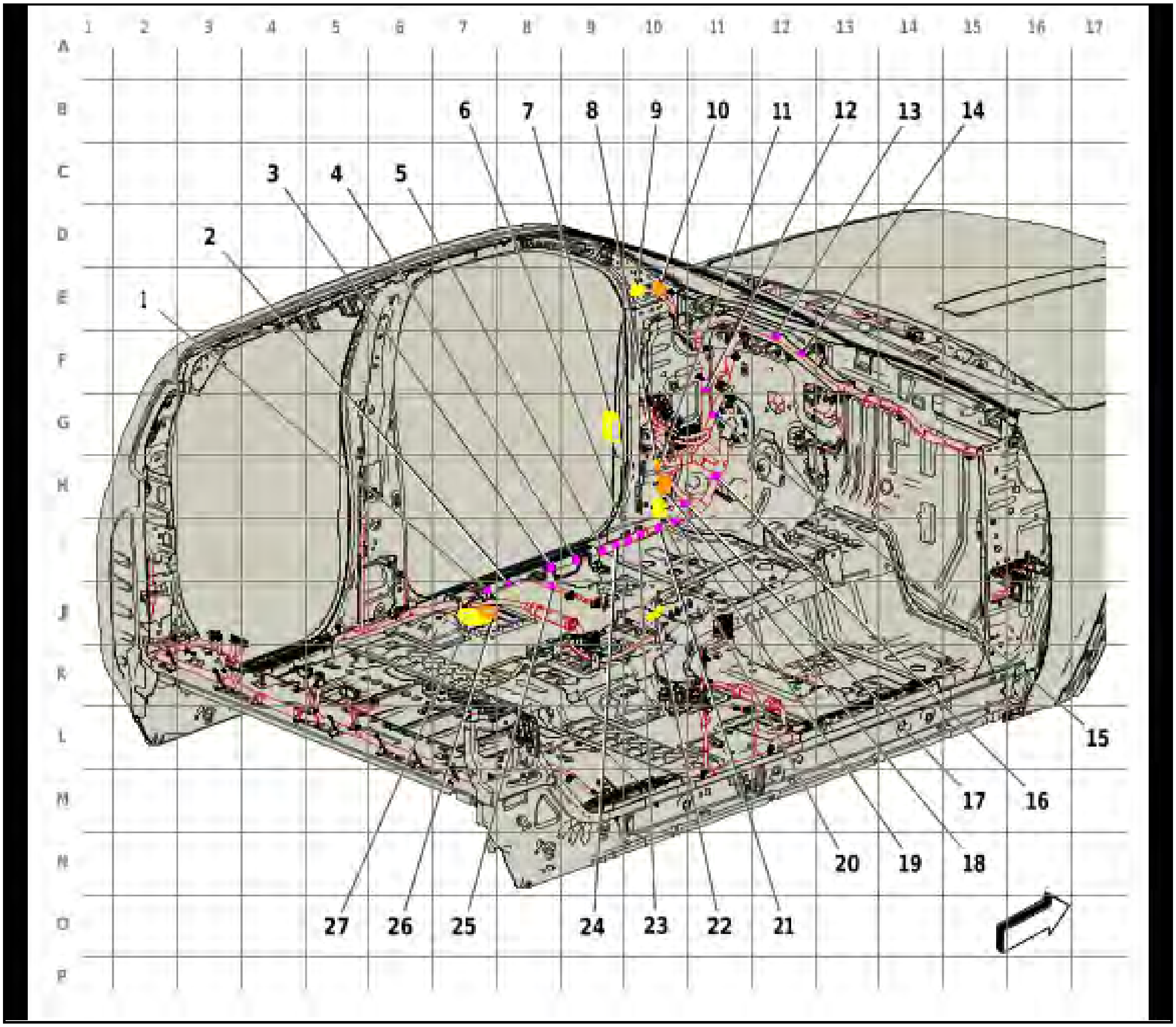


6178582

Items

(1)	X367 Instrument Panel Wiring Harness to Body Wiring Harness
(2)	J218 Instrument Panel Wiring Harness
(3)	J217 Instrument Panel Wiring Harness
(4)	J216 Instrument Panel Wiring Harness
(5)	J215 Instrument Panel Wiring Harness
(6)	J331 Front Floor Console Wiring Harness
(7)	X304 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness Extension Harness
(8)	X305 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness
(9)	J330 Front Floor Console Wiring Harness

Harness Routing Views (Body Harness Routing - Left Front of Passenger Compartment)



6178583

Items

(1)	J312 Body Wiring Harness
(2)	J311 Body Wiring Harness
(3)	J309 Body Wiring Harness
(4)	J308 Body Wiring Harness
(5)	J307 Body Wiring Harness
(6)	J305 Body Wiring Harness
(7)	X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver
(8)	X399 Instrument Panel Wiring Harness to Body Wiring Harness (UVB-UV2)
(9)	X402C Roof Wiring Harness to Body Wiring Harness
(10)	X401 Roof Wiring Harness to Body Wiring Harness
(11)	X380 Instrument Panel Wiring Harness to Body Wiring Harness (UV2/UXA-UVB)
(12)	J200 Body Wiring Harness
(13)	J201 Body Wiring Harness
(14)	J202 Body Wiring Harness
(15)	J300 Body Wiring Harness
(16)	J207 Body Wiring Harness
(17)	J301 Body Wiring Harness
(18)	X300 Body Wiring Harness to Instrument Panel Wiring Harness
(19)	J302 Body Wiring Harness
(20)	X301 Body Wiring Harness to Instrument Panel Wiring Harness
(21)	J303 Body Wiring Harness
(22)	X367 Instrument Panel Wiring Harness to Body Wiring Harness
(23)	J304 Body Wiring Harness

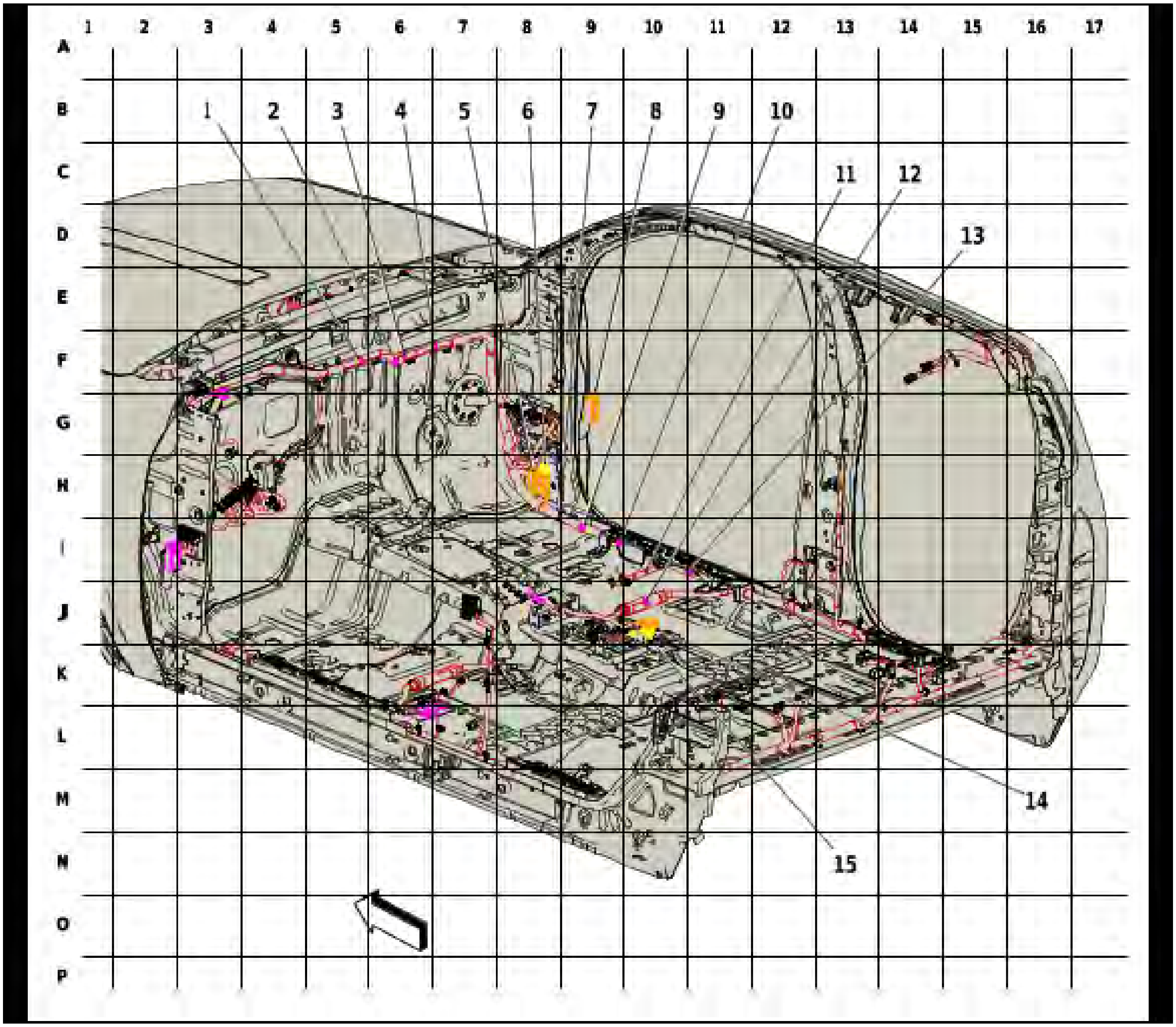
(24) J306 Body Wiring Harness

(25) J310 Body Wiring Harness

(26) X302A Front Seat Wiring Harness - Driver to Body Wiring Harness

(27) X302B Front Seat Wiring Harness - Driver to Body Wiring Harness

Harness Routing Views (Body Harness Routing - Right Front of Passenger Compartment)



6178584

Items

(1) J203 Body Wiring Harness

(2) J204 Body Wiring Harness

(3) J205 Body Wiring Harness

(4) J206 Body Wiring Harness

(5) X400 Instrument Panel Wiring Harness to Body Wiring Harness

(6) X499C Body Wiring Harness to Instrument Panel Wiring Harness (U2K)

(7) J320 Body Wiring Harness

(8) X404 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passenger

(9) J321 Body Wiring Harness

(10) J322 Body Wiring Harness

(11) J324 Body Wiring Harness

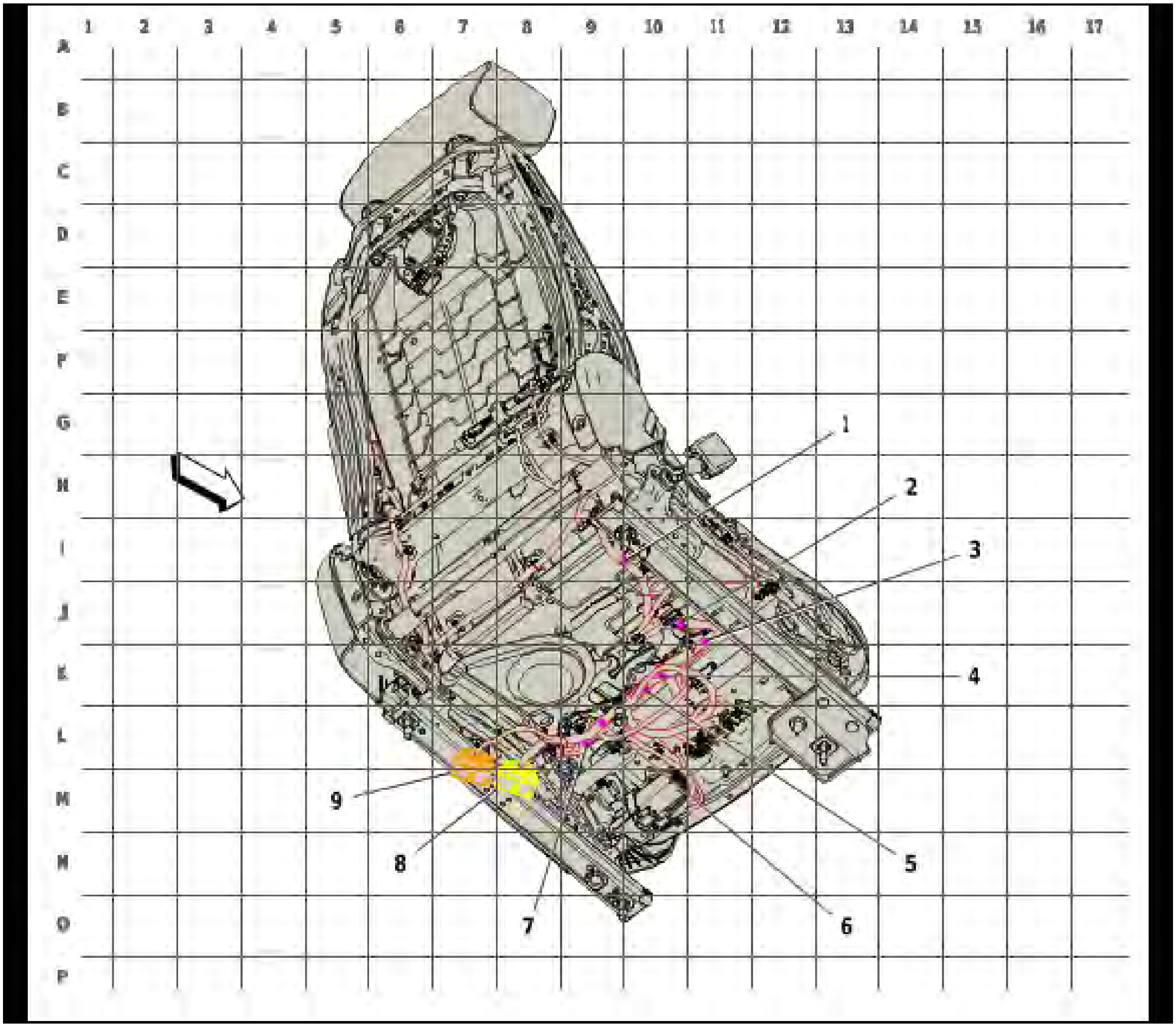
(12) J325 Body Wiring Harness

(13) J323 Body Wiring Harness

(14) X402A Front Seat Wiring Harness - Passenger to Body Wiring Harness

(15)	X402B Front Seat Wiring Harness - Passenger to Body Wiring Harness

Harness Routing Views (Front Seat Wiring Harness - Driver Routing)

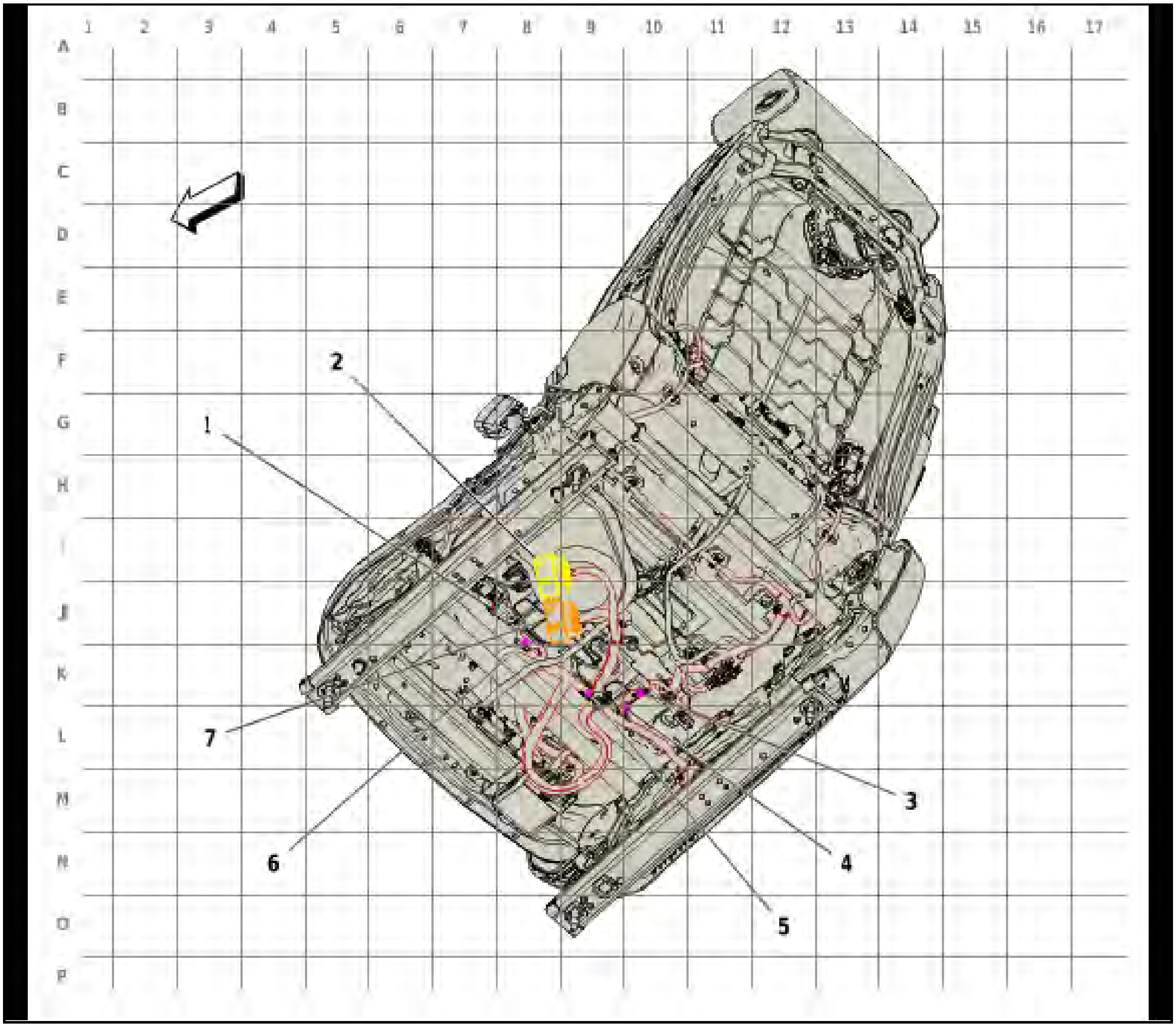


6178585

Items

(1)	J345 Front Seat Wiring Harness - Driver
(2)	J346 Front Seat Wiring Harness - Driver
(3)	J344 Front Seat Wiring Harness - Driver
(4)	J343 Front Seat Wiring Harness - Driver
(5)	J342 Front Seat Wiring Harness - Driver
(6)	J341 Front Seat Wiring Harness - Driver
(7)	J340 Front Seat Wiring Harness - Driver
(8)	X302A Front Seat Wiring Harness - Driver to Body Wiring Harness
(9)	X302B Front Seat Wiring Harness - Driver to Body Wiring Harness

Harness Routing Views (Front Seat Wiring Harness - Passenger Routing)



6178586

Items

(1) J348 Front Seat Wiring Harness - Passenger

(2) X402B Front Seat Wiring Harness - Passenger to Body Wiring Harness

(3) J349 Front Seat Wiring Harness - Passenger

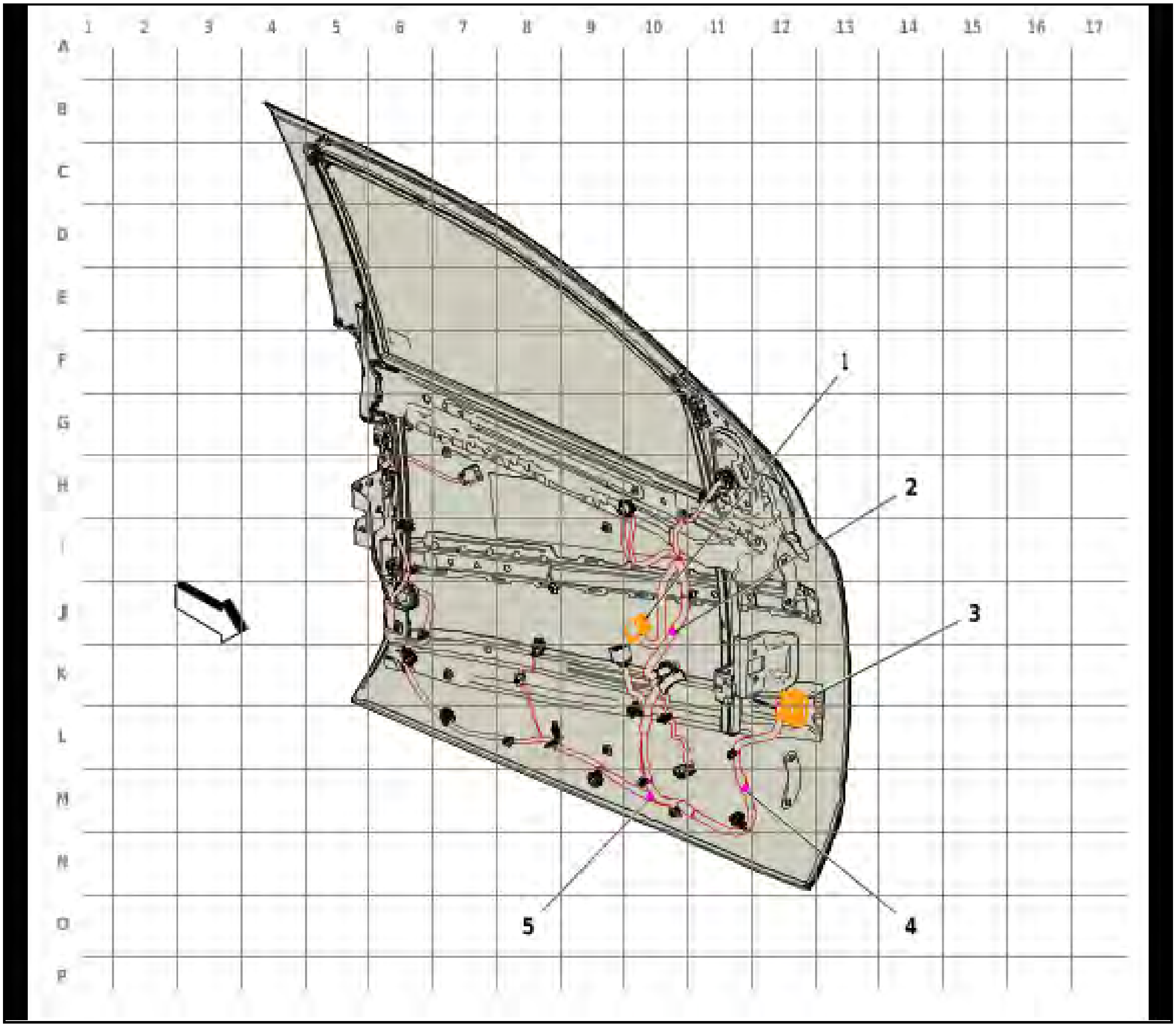
(4) J351 Front Seat Wiring Harness - Passenger

(5) J350 Front Seat Wiring Harness - Passenger

(6) J347 Front Seat Wiring Harness - Passenger

(7) X402A Front Seat Wiring Harness - Passenger to Body Wiring Harness

Harness Routing Views (Driver Door Harness Routing (UQ3))



6178587

Items

(1) X393 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver

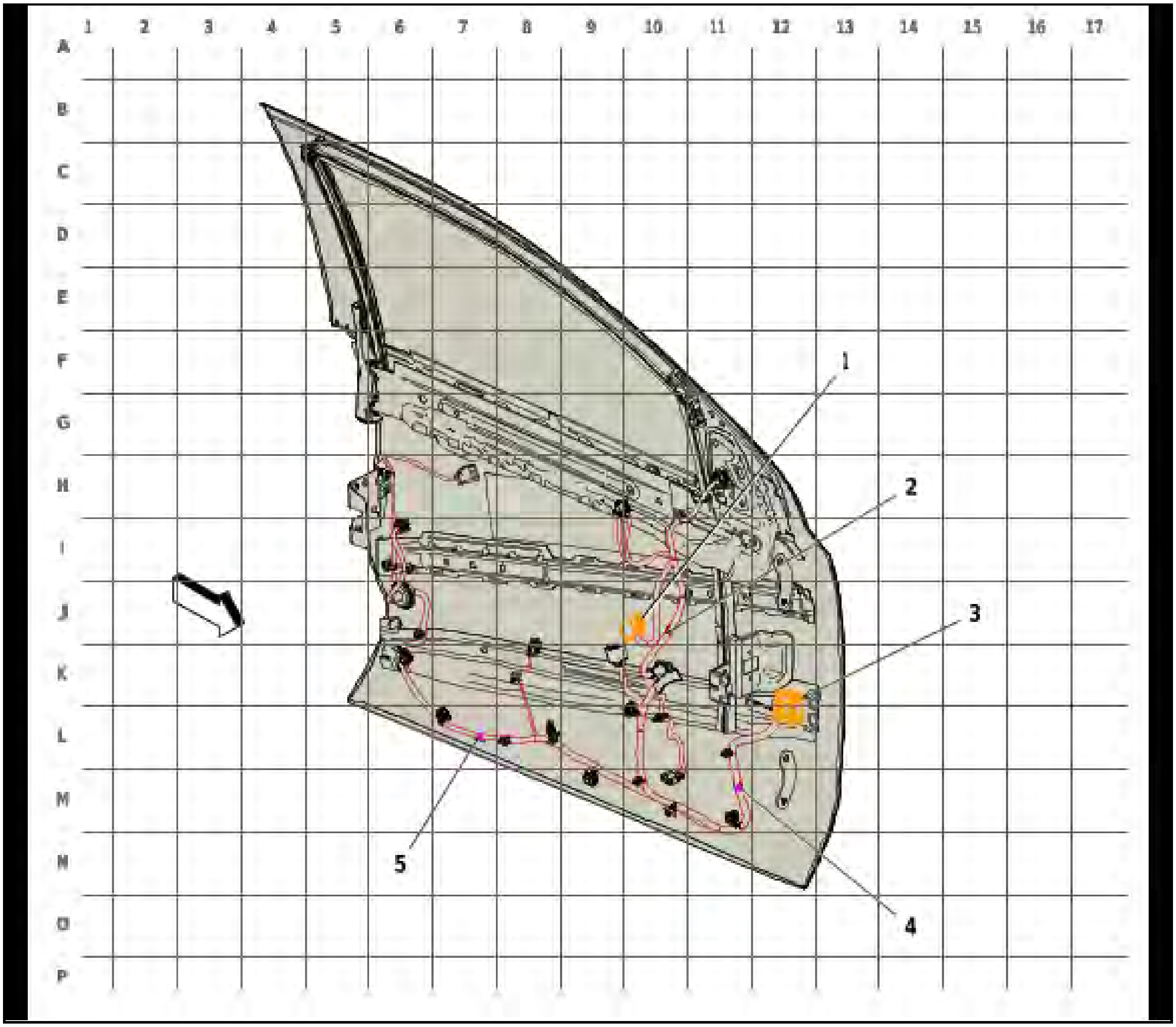
(2) J500 Front Side Door Door Wiring Harness - Driver

(3) X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver

(4) J501 Front Side Door Door Wiring Harness - Driver

(5) J502 Front Side Door Door Wiring Harness - Driver

Harness Routing Views (Driver Door Harness Routing (UQA))



6178588

Items

(1) X393 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver

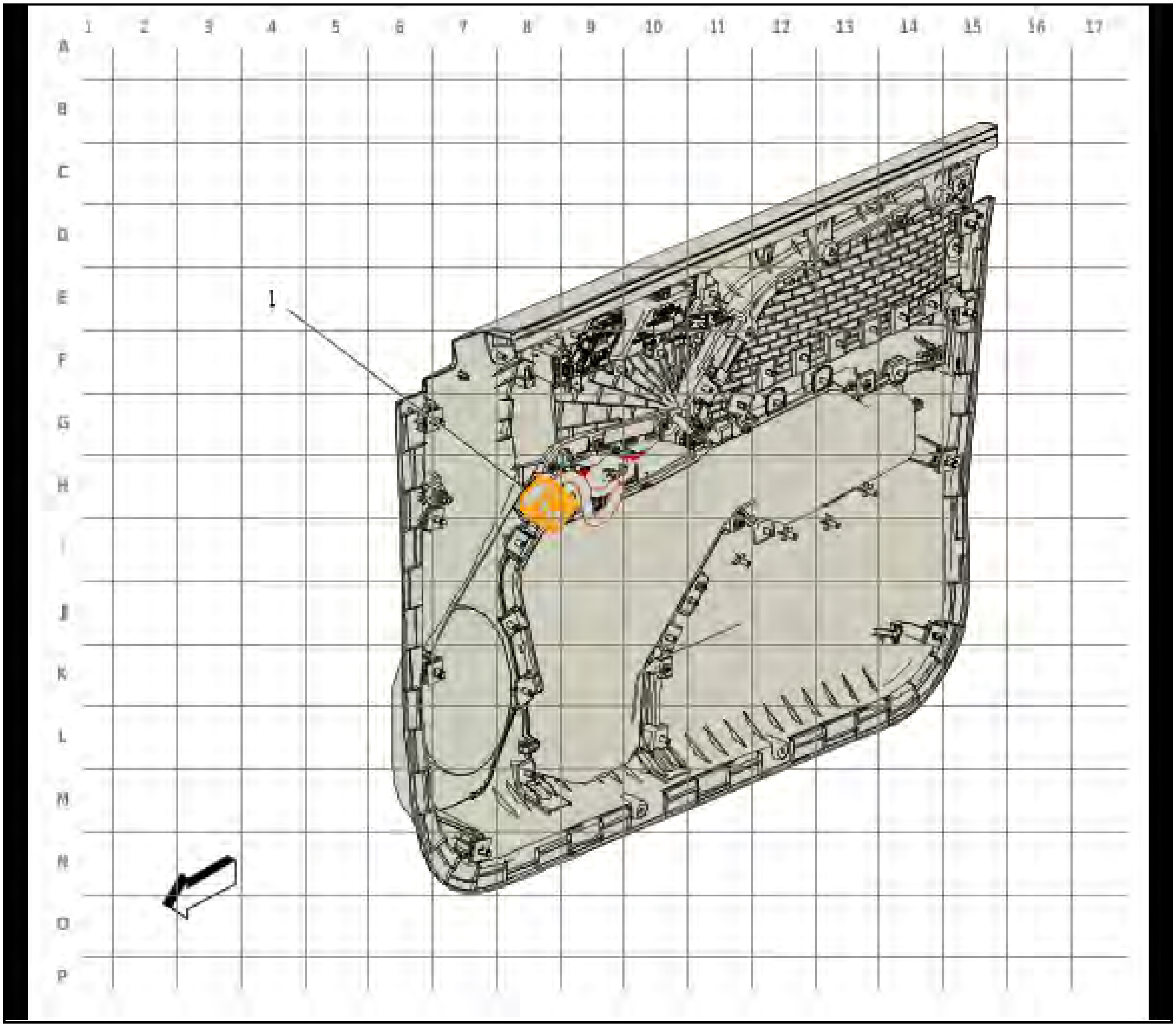
(2) J500 Front Side Door Door Wiring Harness - Driver

(3) X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver

(4) J501 Front Side Door Door Wiring Harness - Driver

(5) J502 Front Side Door Door Wiring Harness - Driver

Harness Routing Views (Driver Door Trim Harness Routing)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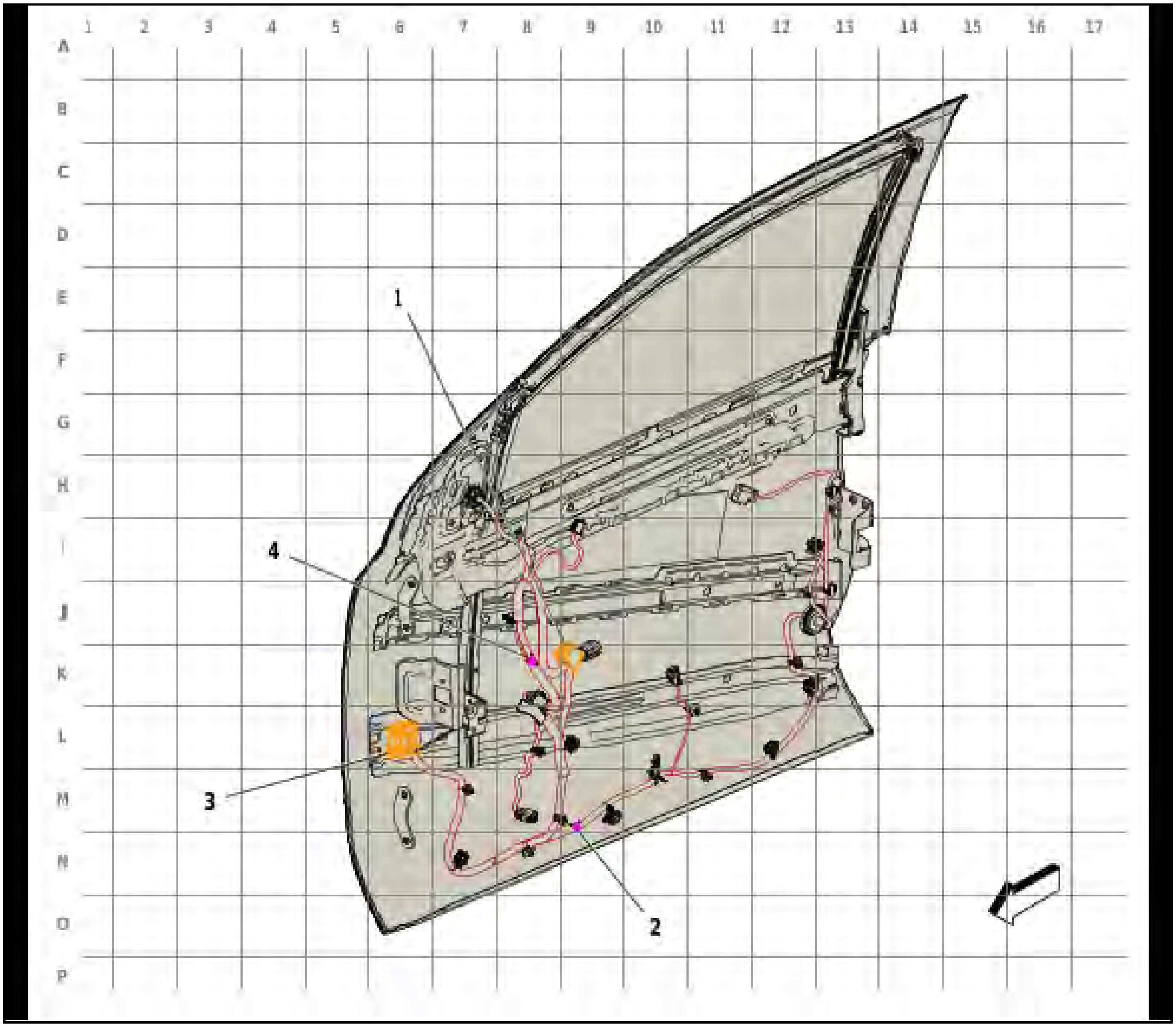
6178589

Items

(1)	X393 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver

Harness Routing Views (Passenger Door Harness Routing (UQ3))

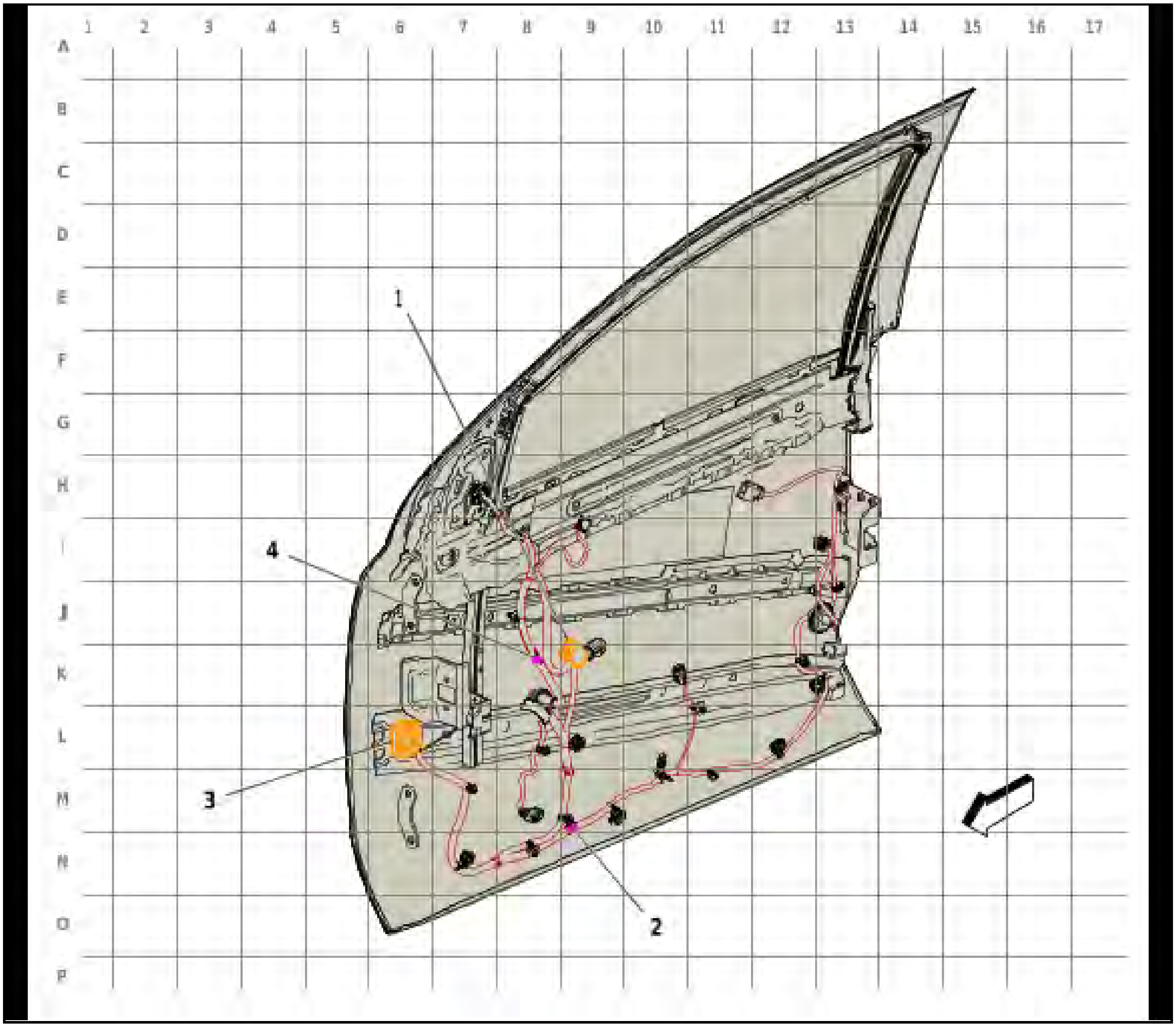


6178590

Items

(1)	X494 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger
(2)	J601 Front Side Door Door Wiring Harness - Passenger
(3)	X404 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passenger
(4)	J600 Front Side Door Door Wiring Harness - Passenger

Harness Routing Views (Passenger Door Harness Routing (UQA))

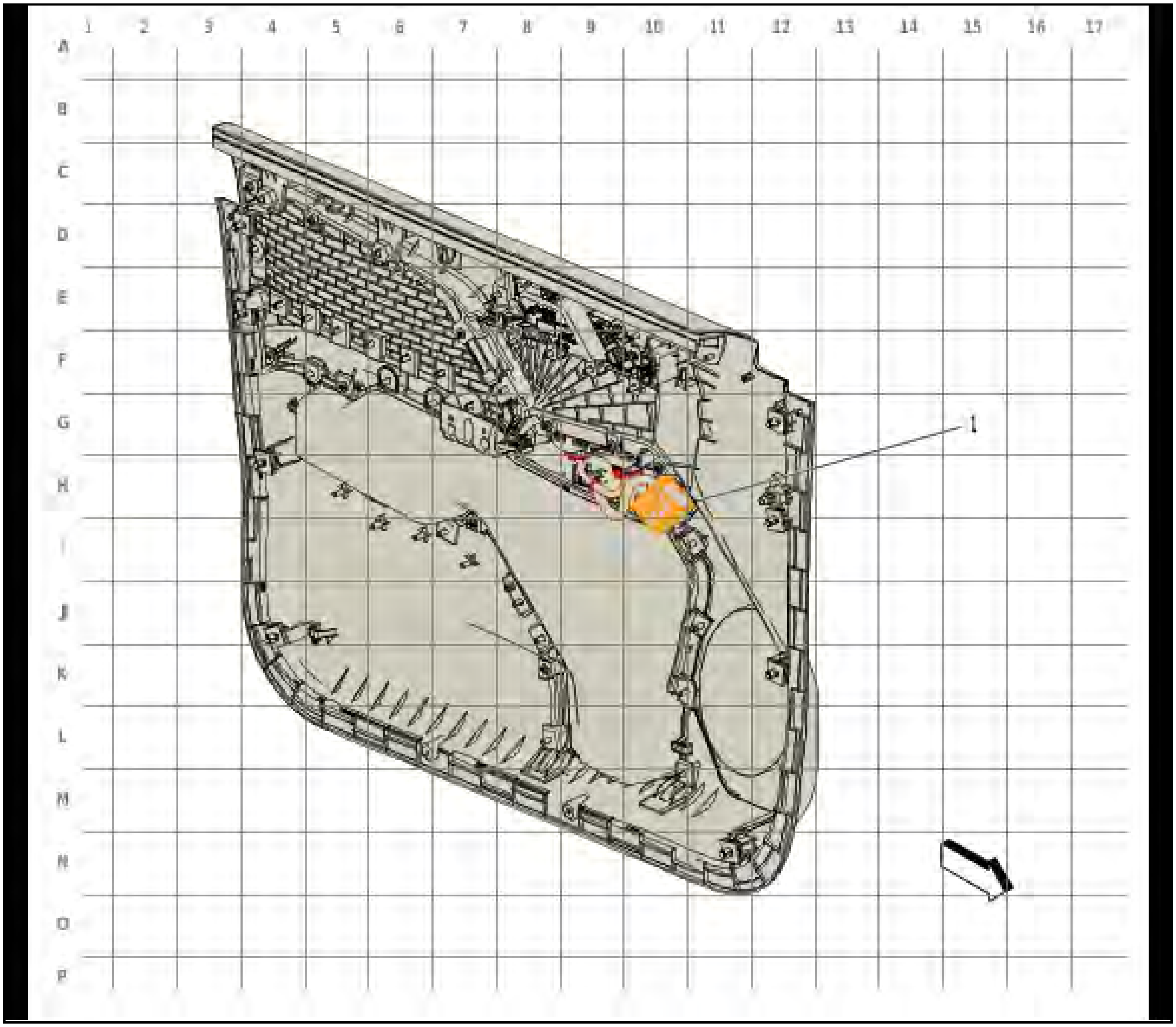


6178591

Items

(1)	X494 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger
(2)	J601 Front Side Door Door Wiring Harness - Passenger
(3)	X404 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passenger
(4)	J600 Front Side Door Door Wiring Harness - Passenger

Harness Routing Views (Passenger Door Trim Harness Routing)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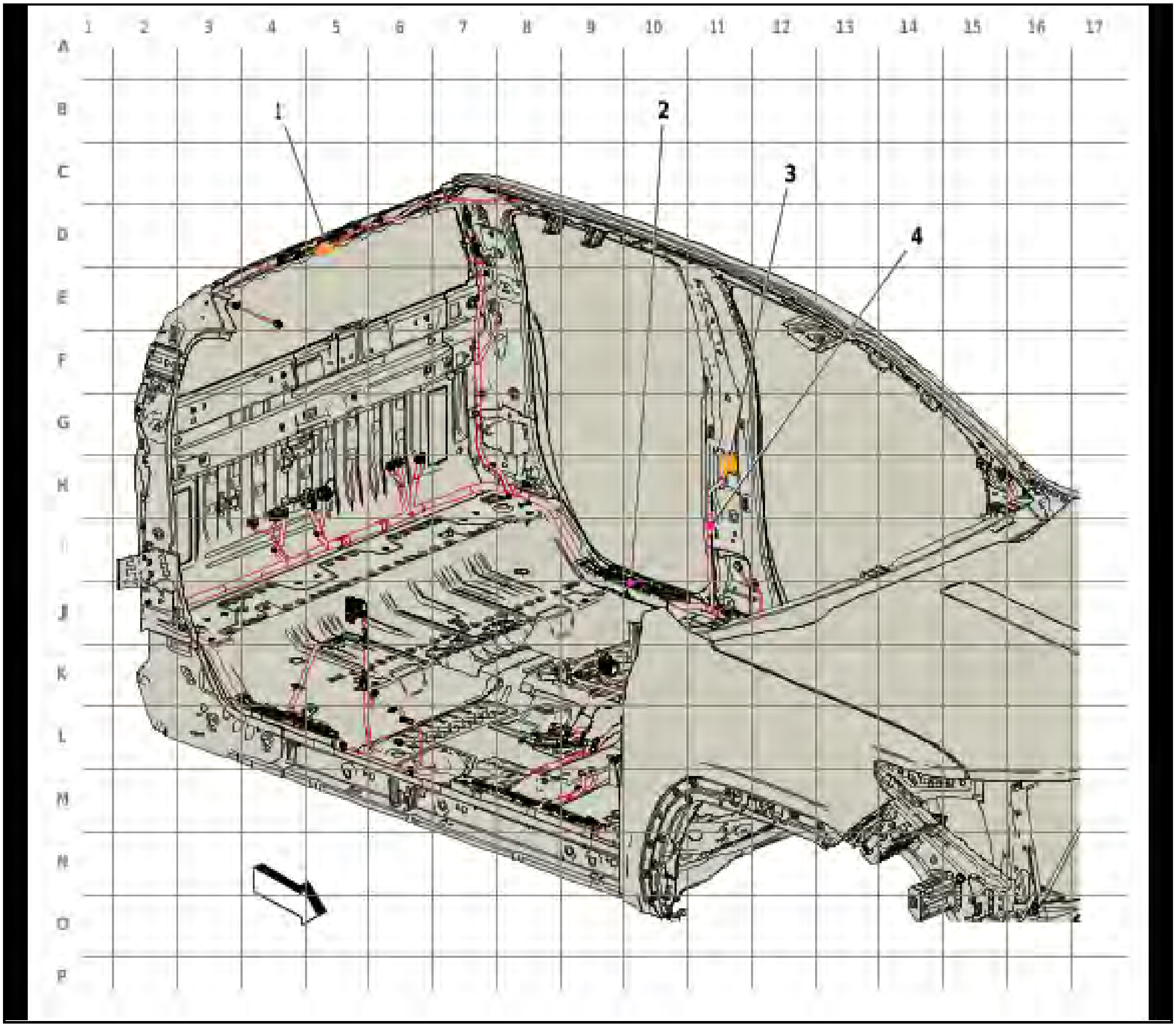
6178592

Items

(1) X494 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger

Harness Routing Views (Body Harness Routing - Left Rear of Passenger Compartment)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1
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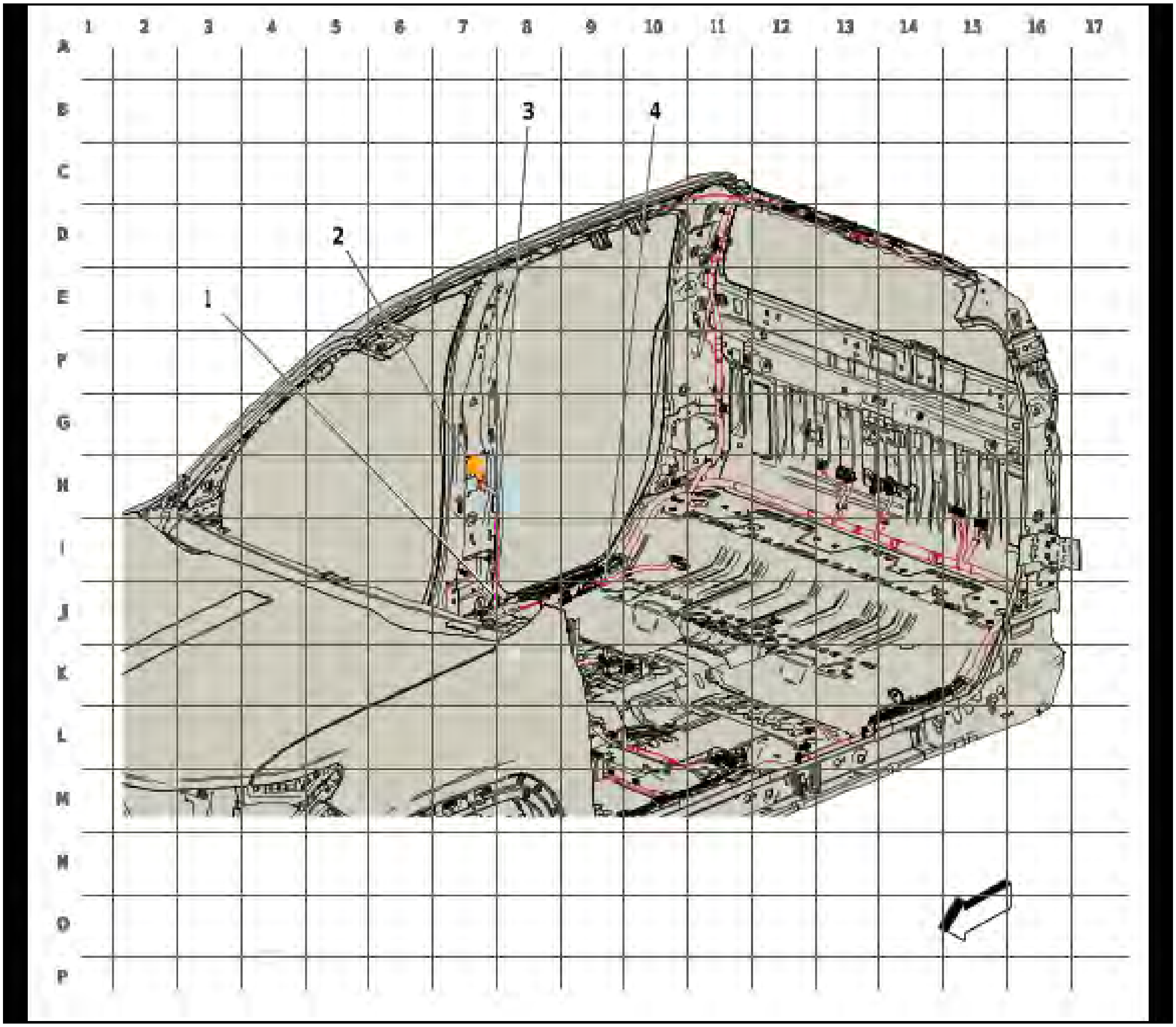
4

6178593

Items

(1)	X500 Roof Wiring Harness to Body Wiring Harness
(2)	J314 Body Wiring Harness
(3)	X503 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness
(4)	J313 Body Wiring Harness

Harness Routing Views (Body Harness Routing - Center and Right of Passenger Compartment)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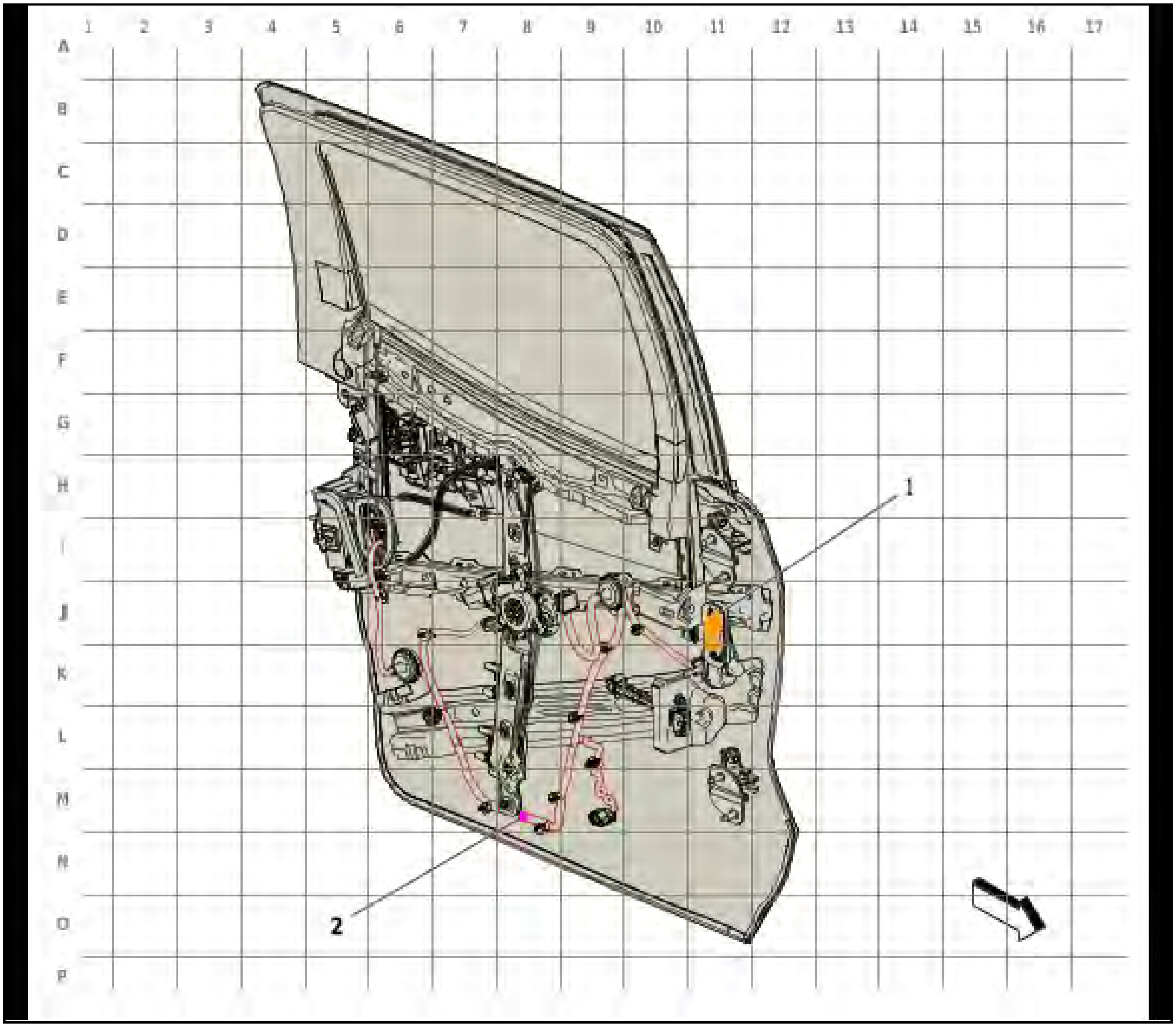
6178594

Items

(1)	J326 Body Wiring Harness
(2)	X604 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness
(3)	J327 Body Wiring Harness
(4)	J328 Body Wiring Harness

Harness Routing Views (Left Rear Door Harness Routing)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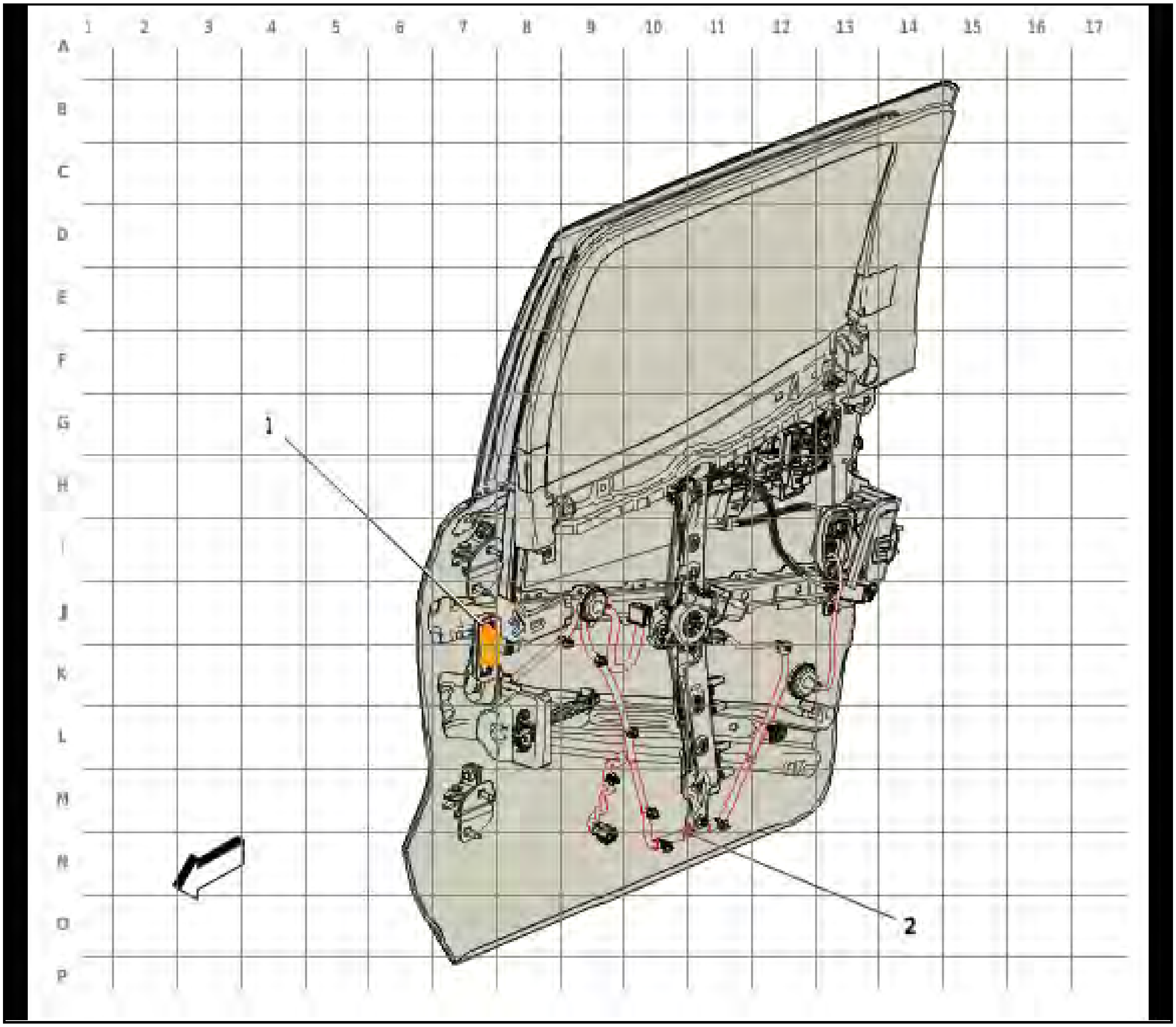
6178595

Items

(1) X503 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness

(2) J700 Rear Side Door Door Wiring Harness - Left

Harness Routing Views (Right Rear Door Harness Routing)


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17
A B C D E F G H I J K L M N O P
1
2

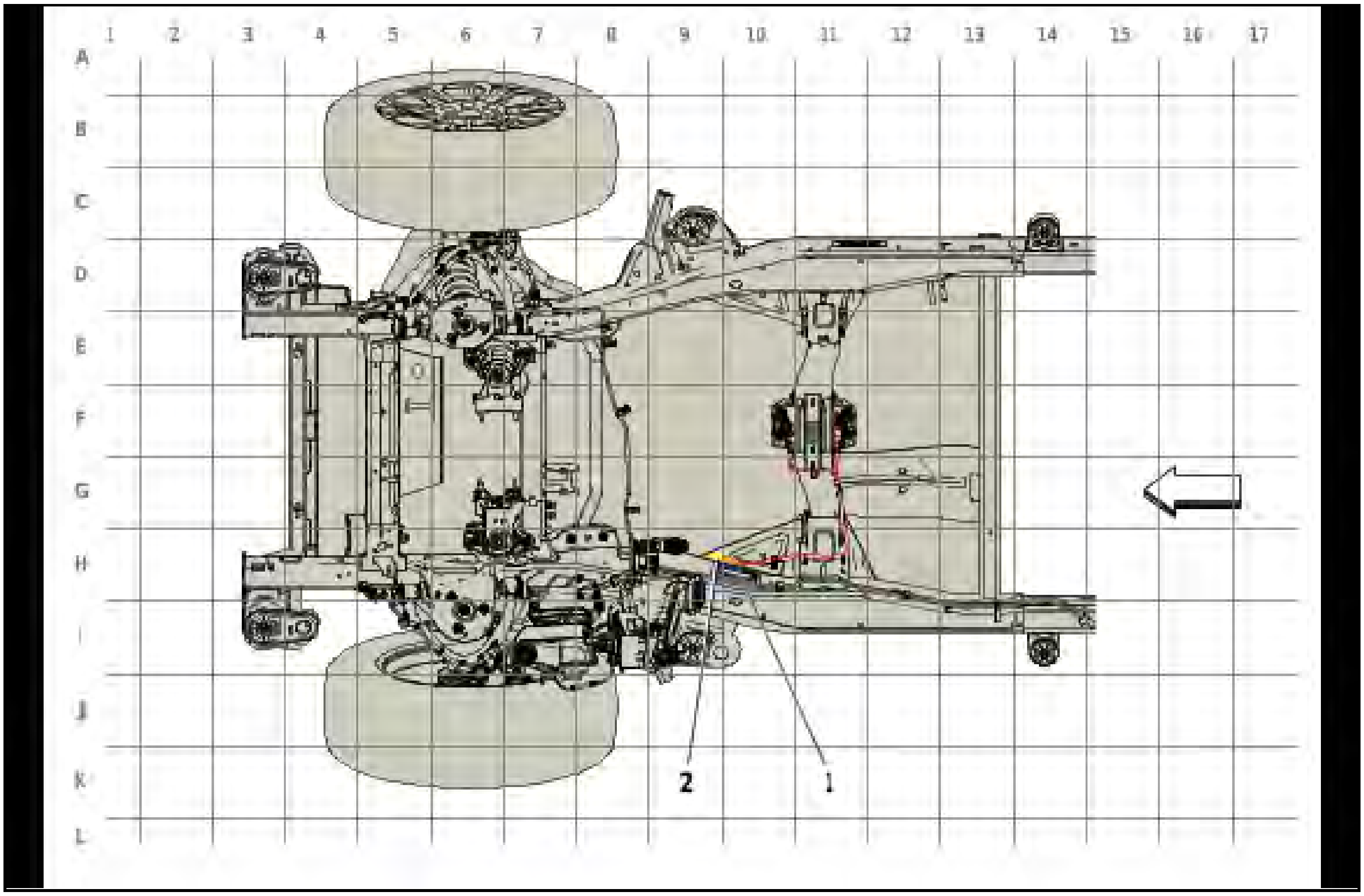
6178596

Items

(1) X604 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness

(2) J800 Rear Side Door Door Wiring Harness - Right

Harness Routing Views (Vehicle Underbody Camera Harness Routing (UXA))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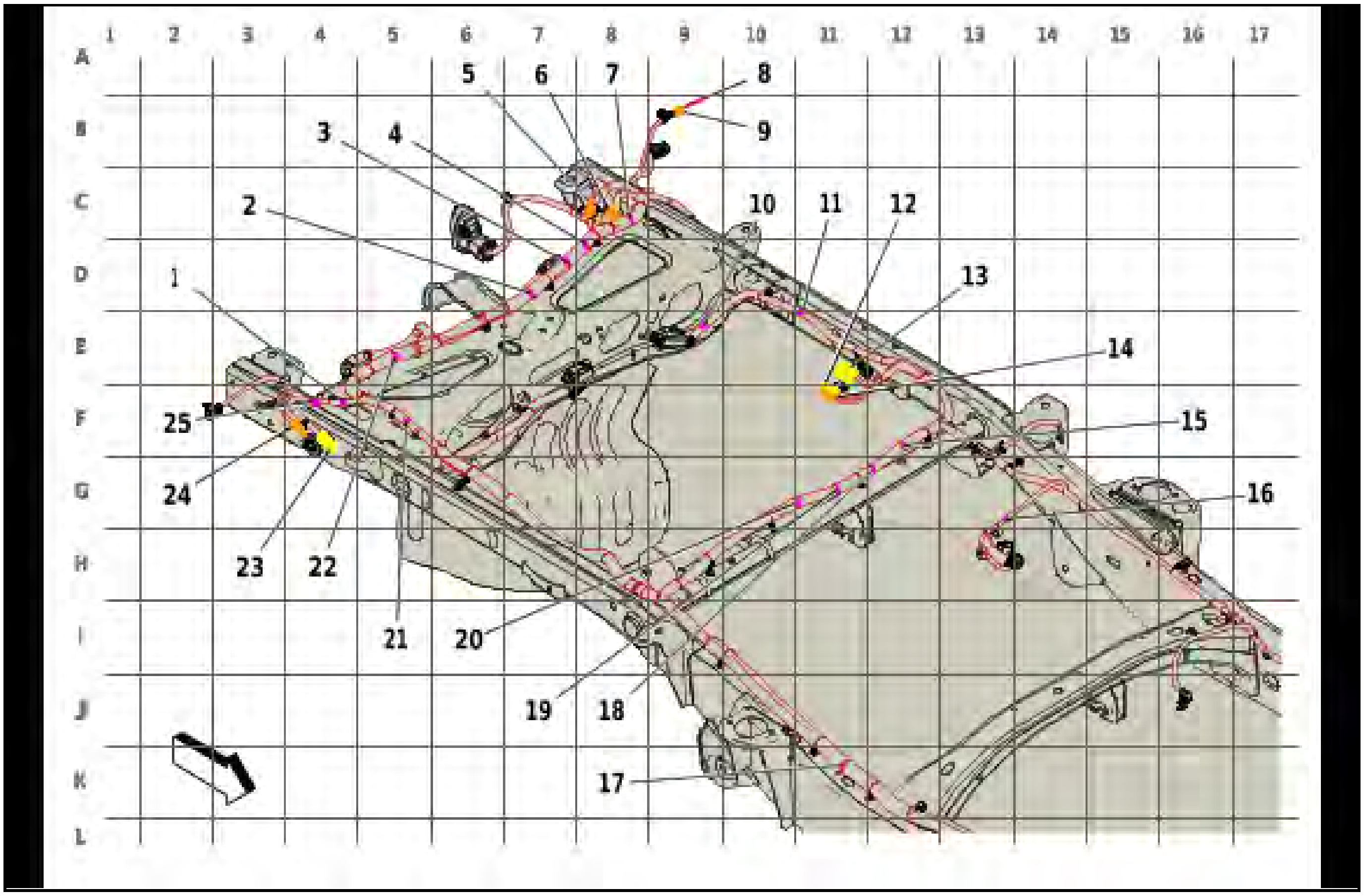
6178597

Items

(1)	X372 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA)
(2)	X371 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA)

Harness Routing Views (Chassis Harness Routing - Rear)



6178598

Items

(1) J408 Chassis Wiring Harness

(2) J411 Chassis Wiring Harness

(3) J412 Chassis Wiring Harness

(4) J414 Chassis Wiring Harness

(5) X933 Chassis Wiring Harness to Rear Object Alarm Sensor Wiring Harness

(6) X700 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness

(7) J415 Chassis Wiring Harness

(8) W26 Blunt Cut - Cargo Lamps Provision

(9) X382 Chassis Wiring Harness to Chassis Wiring Harness (S0Y)

(10) J410 Chassis Wiring Harness

(11) J409 Chassis Wiring Harness

(12) X777 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness (-G94)

(13) X904A Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness

(14) X788 Chassis Wiring Harness to Chassis Rear Wiring Harness Extension Harness (G94)

(15) J404 Chassis Wiring Harness

(16) J416 Chassis Wiring Harness

(17) J400 Chassis Wiring Harness

(18) J403 Chassis Wiring Harness

(19) J402 Chassis Wiring Harness

(20) J401 Chassis Wiring Harness

(21) J406 Chassis Wiring Harness

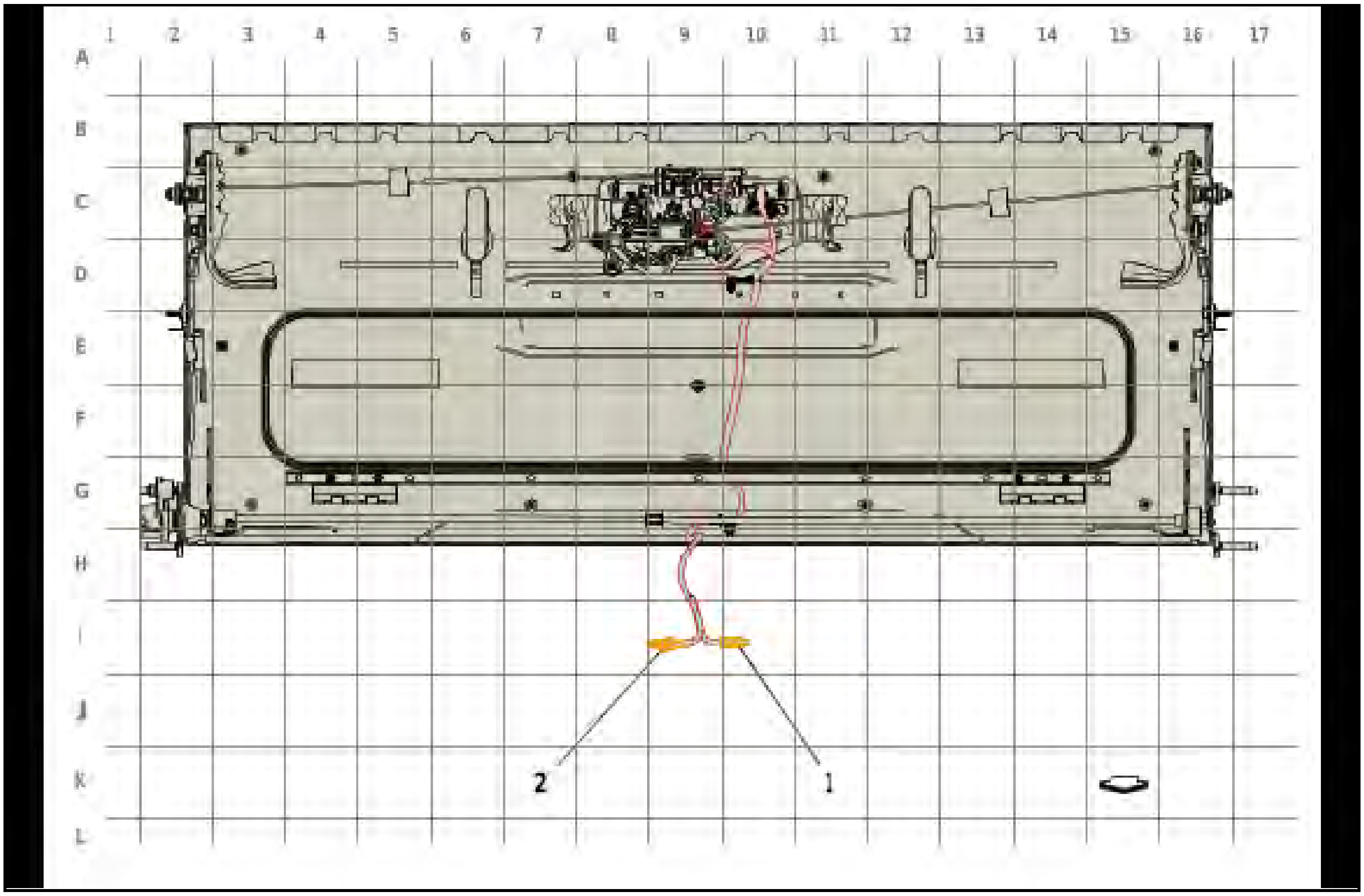
(22) J407 Chassis Wiring Harness

(23) X820 Body Rear Wiring Harness to Chassis Wiring Harness (KC9/KCA)

(24) X808 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness

(25) J413 Chassis Wiring Harness

Harness Routing Views (Endgate Harness Routing)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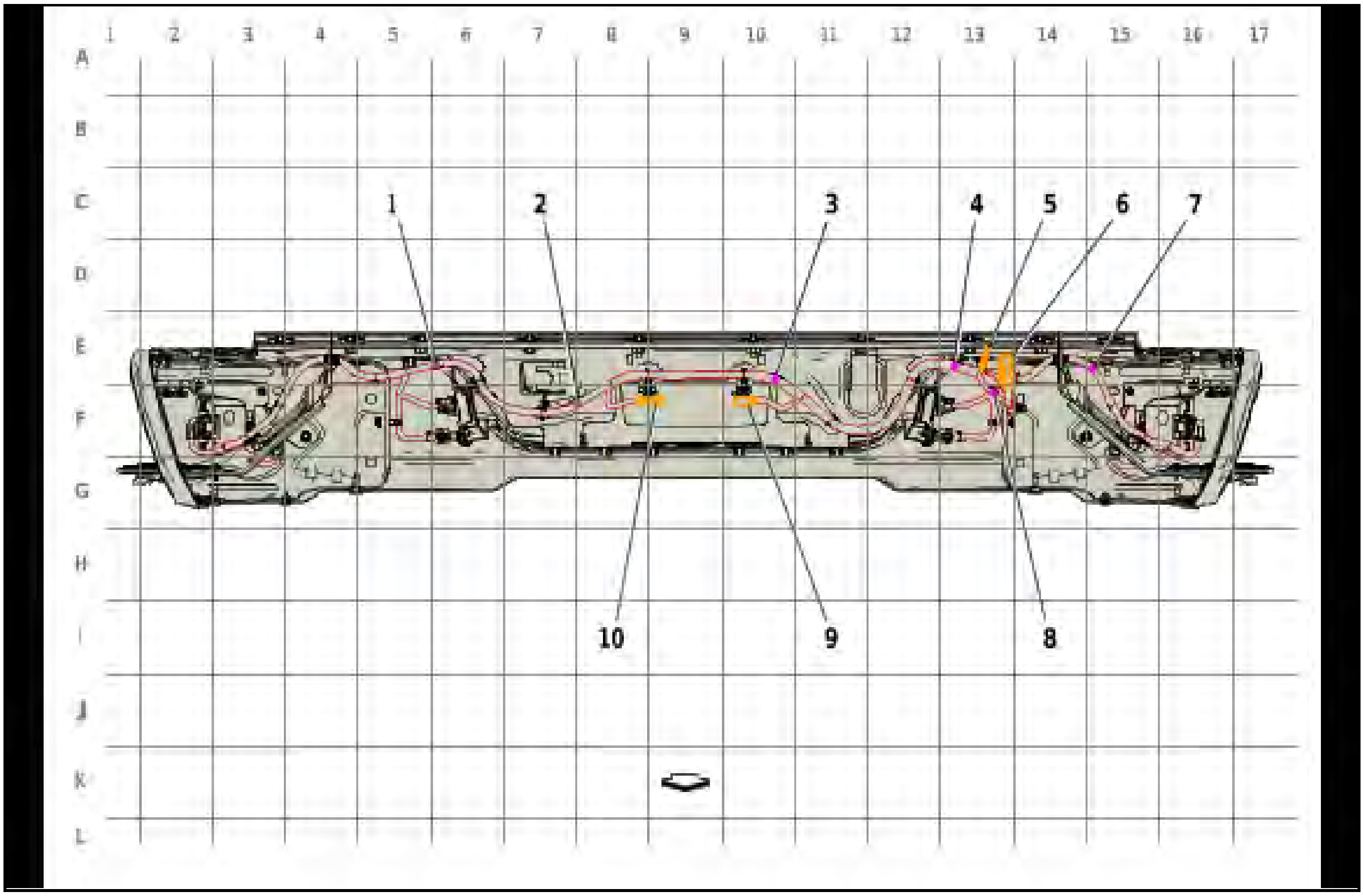
6178599

Items

(1)	X955 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness
(2)	X950 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness

Harness Routing Views (Rear Fascia Harness Routing)



6178600

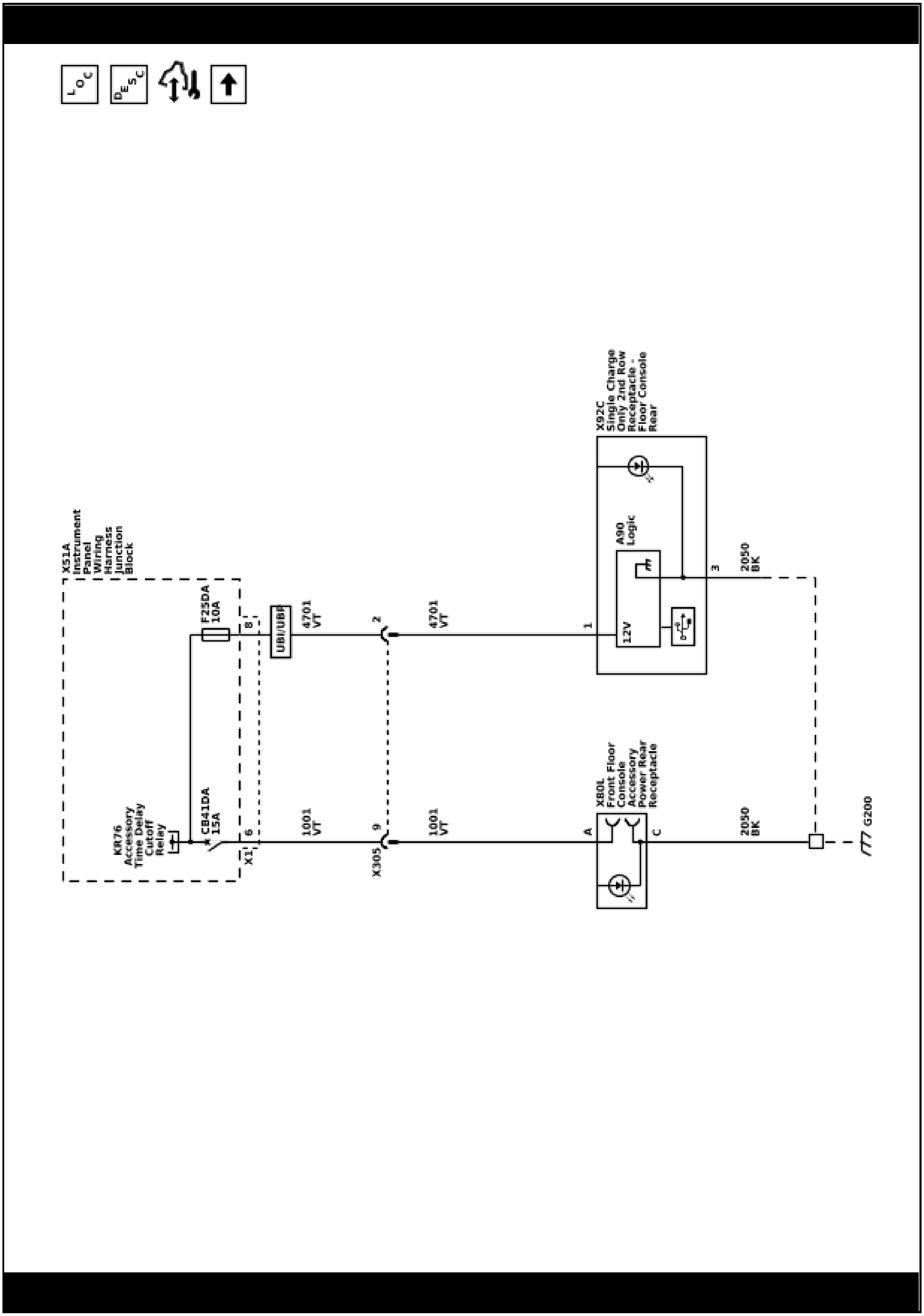
Items

(1)	J900 Rear Object Alarm Sensor Wiring Harness
(2)	J901 Rear Object Alarm Sensor Wiring Harness
(3)	J902 Rear Object Alarm Sensor Wiring Harness
(4)	J903 Rear Object Alarm Sensor Wiring Harness
(5)	X933 Chassis Wiring Harness to Rear Object Alarm Sensor Wiring Harness
(6)	X700 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness
(7)	J905 Rear Object Alarm Sensor Wiring Harness
(8)	J904 Rear Object Alarm Sensor Wiring Harness
(9)	X955 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness
(10)	X950 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness

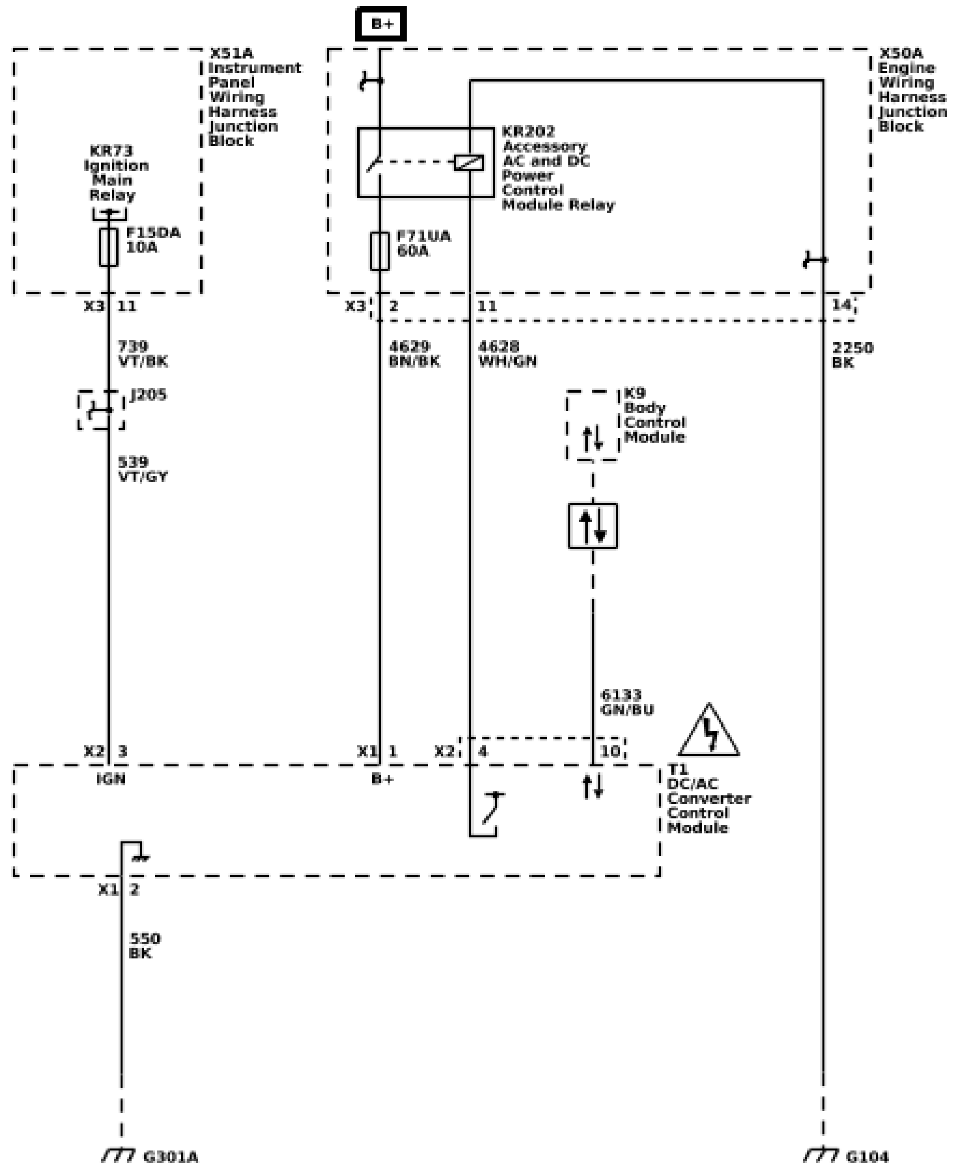
Power Outlets

Schematic and Routing Diagrams

Cigar Lighter/Power Outlet Schematics (Power and Charge Receptacles)

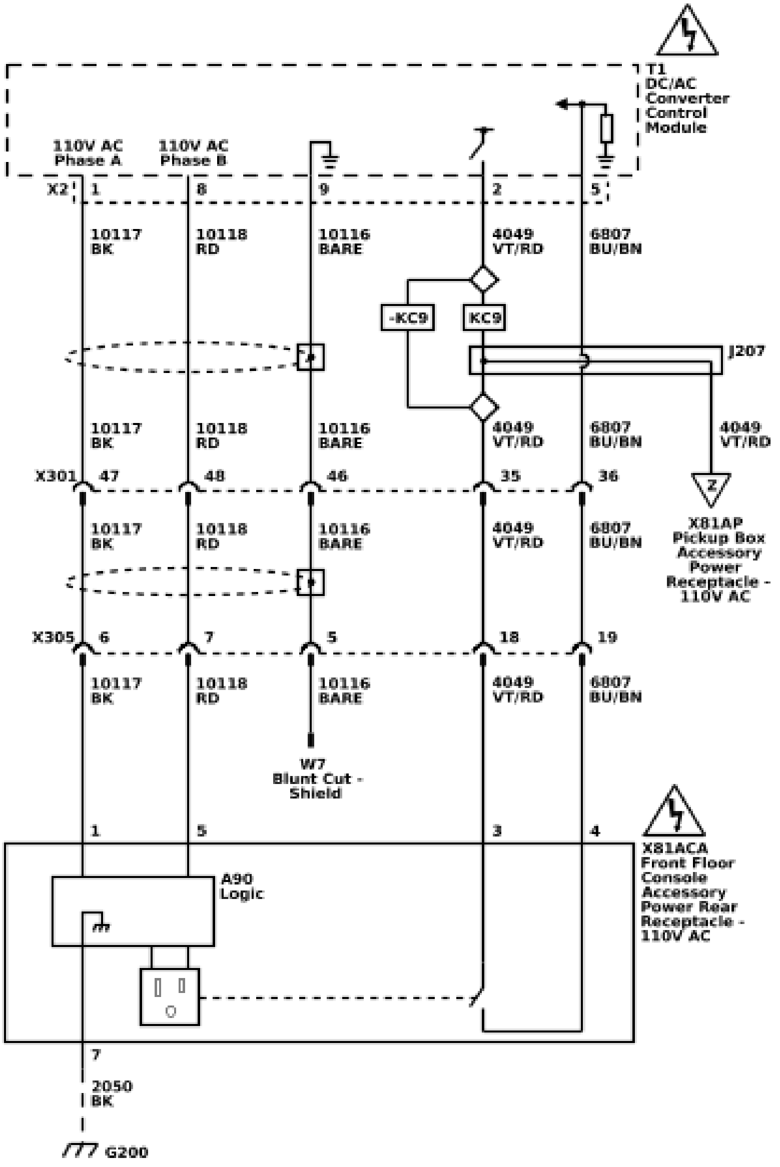

6331812
X51A
Instrument
Panel
Wiring
Harness
Junction
Block
KR76
Accessory
Time Delay
Cutoff
Relay
CB41DA
15A
F25DA
10A
8
6
X1
UBI/UBP
4701
VT
1001
VT
2
9
X305
4701
VT
1001
VT
1
12V
A90
Logic
3
2050
BK
X92C
Single Charge
Only 2nd Row
Receptacle -
Floor Console
Rear
X80L
Front Floor
Console
Accessory
Power Rear
Receptacle
A
C
2050
BK
G200

Cigar Lighter/Power Outlet Schematics (Inverter Module Power, Ground, and Serial Data (KI6 / KI7 / KCA / KC9))

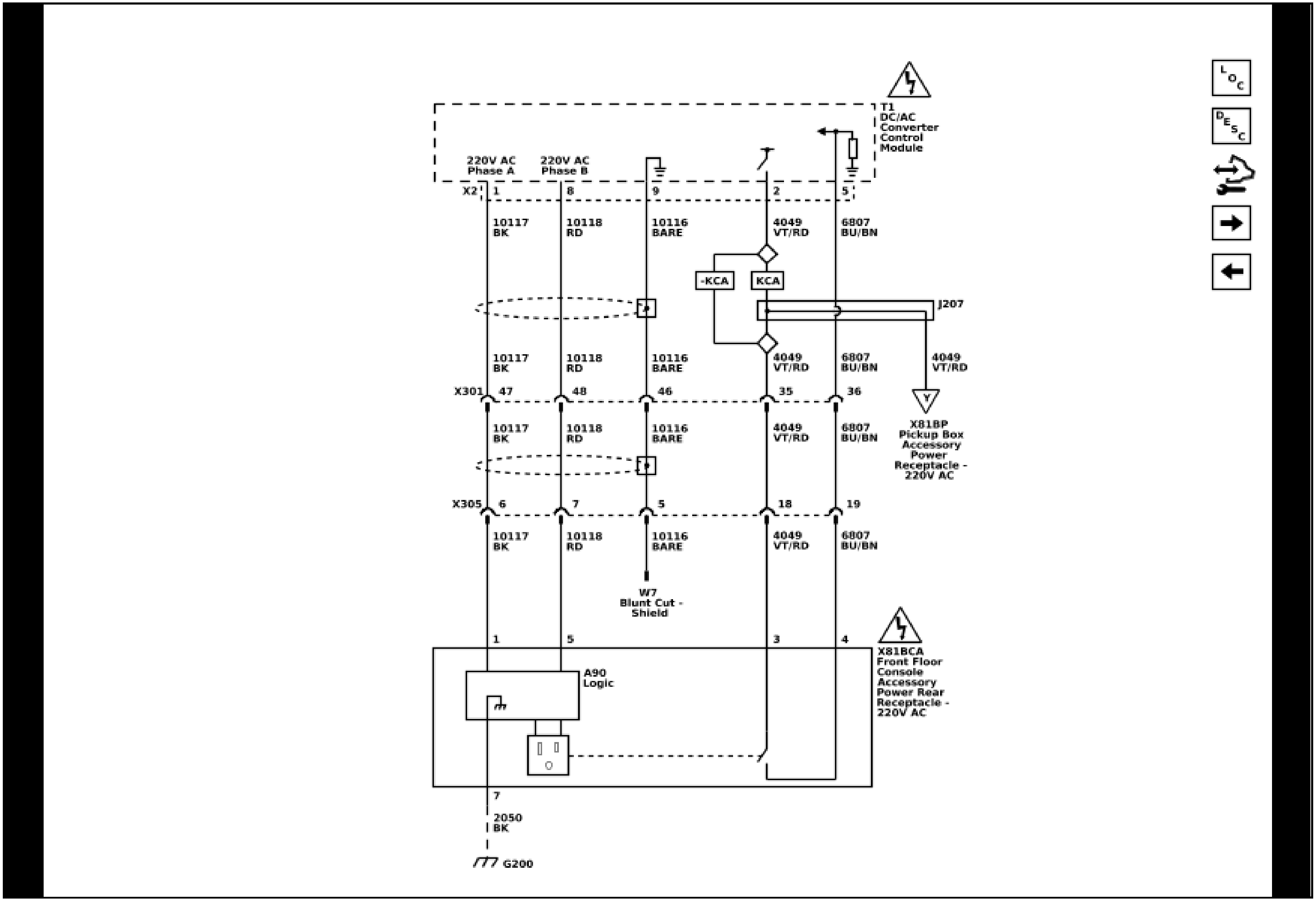

B+
X51A Instrument Panel Wiring Harness Junction Block
KR73 Ignition Main Relay
F15DA 10A
X3 11
739 VT/BK
J205
539 VT/GY
X50A Engine Wiring Harness Junction Block
KR202 Accessory AC and DC Power Control Module Relay
F71UA 60A
X3 2
11
14
4629 BN/BK
4628 WH/GN
2250 BK
K9 Body Control Module
6133 GN/BU
X2 3
IGN
X1 1
B+
X2 4
10
T1 DC/AC Converter Control Module
X1 2
550 BK
G301A
G104

6331813

Cigar Lighter/Power Outlet Schematics (110V AC Accessory Power Receptacle - Front Floor Console Rear Receptacle (KI6 / KC9))

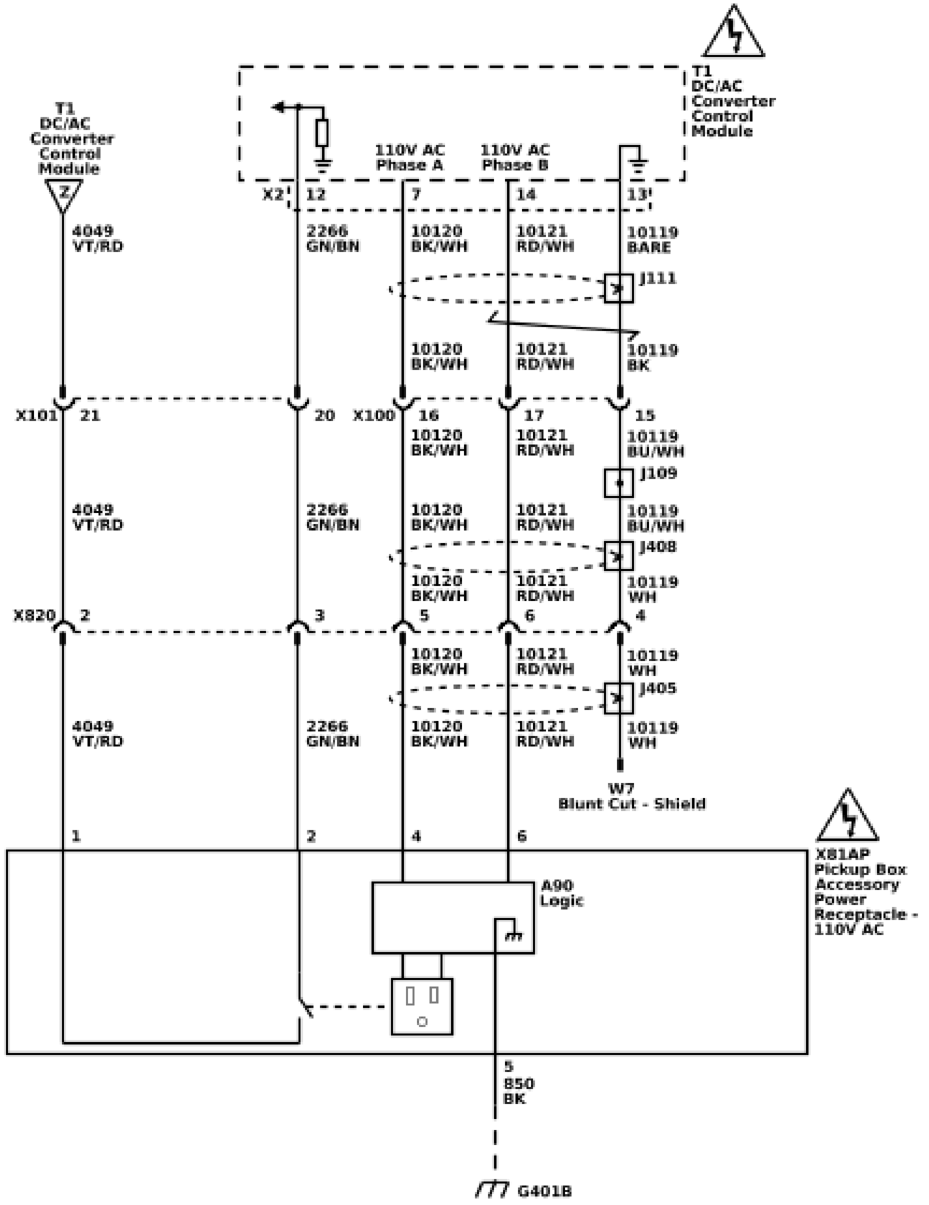

T1
DC/AC Converter Control Module
110V AC Phase A
110V AC Phase B
X2
1
8
9
2
5
10117 BK
10118 RD
10116 BARE
4049 VT/RD
6807 BU/BN
-KC9
KC9
J207
X301
47
48
46
35
36
X81AP Pickup Box Accessory Power Receptacle - 110V AC
X305
6
7
5
18
19
W7 Blunt Cut - Shield
1
5
3
4
A90 Logic
X81ACA Front Floor Console Accessory Power Rear Receptacle - 110V AC
7
2050 BK
G200
6331814

Cigar Lighter/Power Outlet Schematics (220V AC Accessory Power Receptacle - Front Floor Console Rear Receptacle (KI7 / KCA))


T1
DC/AC Converter Control Module
220V AC Phase A
220V AC Phase B
X2
1
8
9
2
5
10117 BK
10118 RD
10116 BARE
4049 VT/RD
6807 BU/BN
-KCA
KCA
J207
X301
47
48
46
35
36
X81BP Pickup Box Accessory Power Receptacle - 220V AC
X305
6
7
5
18
19
W7 Blunt Cut - Shield
1
5
3
4
A90 Logic
X81BCA Front Floor Console Accessory Power Rear Receptacle - 220V AC
7
2050 BK
G200

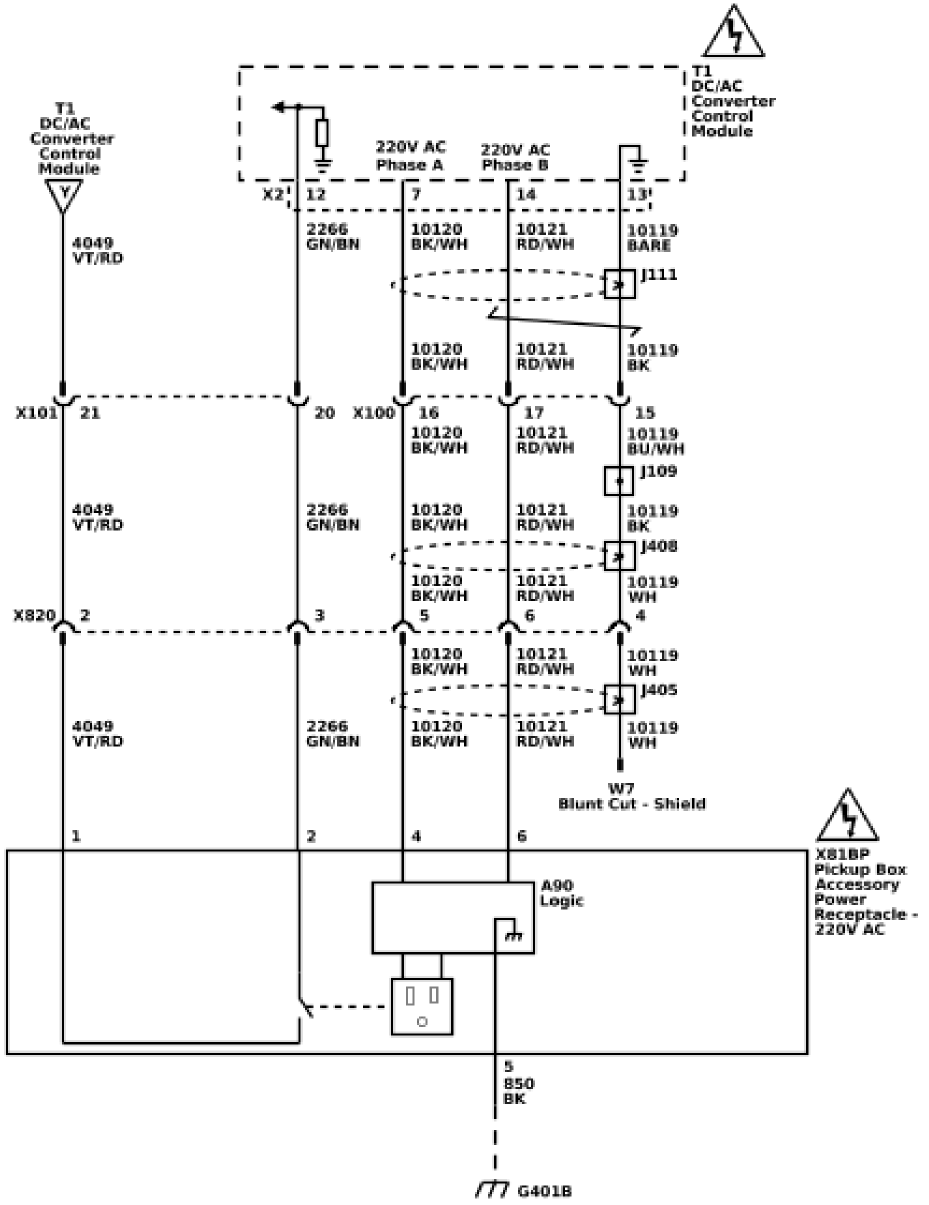
6331815

Cigar Lighter/Power Outlet Schematics (110V AC Accessory Power Receptacle - Pickup Box (KC9))


T1
DC/AC
Converter
Control
Module
Z
4049
VT/RD
X2
12
2266
GN/BN
110V AC
Phase A
7
10120
BK/WH
110V AC
Phase B
14
10121
RD/WH
13
10119
BARE
J111
10119
BK
X101
21
20
X100
16
17
15
10119
BU/WH
J109
J408
10119
WH
X820
2
3
5
6
4
J405
W7
Blunt Cut - Shield
1
2
4
6
A90
Logic
X81AP
Pickup Box
Accessory
Power
Receptacle -
110V AC
5
850
BK
G401B

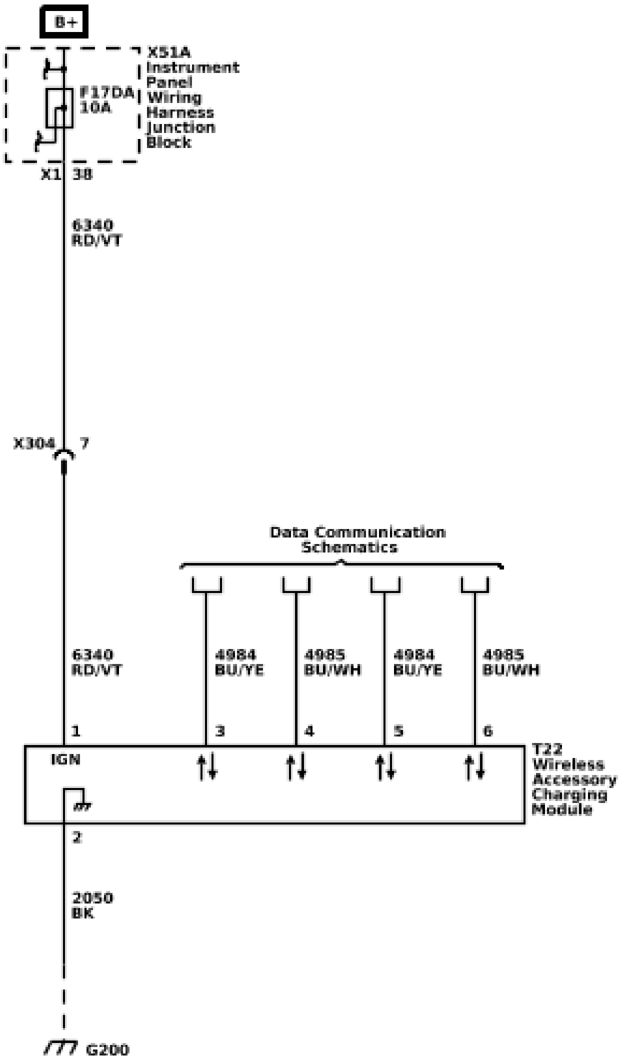
6331816

Cigar Lighter/Power Outlet Schematics (220V AC Accessory Power Receptacle - Pickup Box (KCA))


T1
DC/AC
Converter
Control
Module
4049
VT/RD
X2
12
2266
GN/BN
220V AC
Phase A
7
10120
BK/WH
220V AC
Phase B
14
10121
RD/WH
13
10119
BARE
J111
10119
BK
X101
21
20
X100
16
17
15
10119
BU/WH
J109
J408
10119
WH
X820
2
3
5
6
4
J405
W7
Blunt Cut - Shield
1
A90
Logic
X81BP
Pickup Box
Accessory
Power
Receptacle -
220V AC
5
850
BK
G401B

6331817

Cigar Lighter/Power Outlet Schematics (Wireless Charging (K4C))


B+
X51A
Instrument
Panel
Wiring
Harness
Junction
Block
F17DA
10A
X1 38
6340
RD/VT
X304 7
Data Communication
Schematics
6340
RD/VT
4984
BU/YE
4985
BU/WH
4984
BU/YE
4985
BU/WH
1
3
4
5
6
IGN
T22
Wireless
Accessory
Charging
Module
2
2050
BK
G200

6331818

Description and Operation

Mobile Device Wireless Charger Description and Operation

Mobile Device Wireless Charging System

The Mobile Device Wireless Charging System (WCS) is an system for wirelessly charging mobile devices. It is capable of charging the batteries of compatible mobile devices. A compatible device is one that is compliant with Power Matters Alliance (PMA), Wireless Power Consortium (WPC) Standard, or Alliance for Wireless Power (A4WP), meaning that it is equipped with a PMA, WPC, or A4WP wireless charge “receiver” that will work with the charge “transmitter” installed in the vehicle. The devices may utilize built-in charging circuitry or an adapter (external plug-in device which contains the charging circuitry). To check for phone or other device compatibility, refer to GM Total Connect.

Warning: Remove all objects from the charging pad before charging your mobile device. Objects, such as coins, keys, rings, paper clips, or cards, between the phone and charging pad will become very hot. On the rare occasion that the charging system does not detect an object, and the object gets wedged between the phone and charger, remove the phone and allow the object to cool before removing it from the charging pad, to prevent burns.

Charging

To charge a device, place it on the charging surface in the vehicle. There is a charging coil located in the center of the charging surface. The device has a charging coil typically near the center of the device. These coils must be lined up in order for charging to proceed. When the interruptible retained accessory power (IRAP) relay is closed (this is true typically when vehicle ignition is in Run or Accessory position), the WCS will detect the device, establish communications with the device to confirm it is a compatible device, and then deliver charging power to the device via wireless interface. The WCS will be able to deliver 5W to 15W of power as requested by the compatible device. It shall only enter a charging state if communication is established and a compatible device is identified.

The WCS shall not enter a charging state if there is no communication established with a compatible device. Due to differences in objects, a foreign object detection protocol is employed to detect a non-compliant device and hold power transfer initiation until the non-compliant object has been removed and a compliant object has been detected. The charger monitors its internal temperature and will shut down if the charger temperature exceeds 185F (85C).

Indicator

The body control module will detect the device battery is charging and send a serial data message on the GMLAN bus to the radio display. The radio display will indicate a device is currently charging by displaying a lightning bolt over the phone icon. When the indicator is toggling on and off this indicates a thermal limit has been reached and the device will not charge. For more information refer to the owners manual.

Cooling

The wireless charger is kept cool using the HVAC system. There is a dedicated HVAC duct that connects to the Wireless Charging Module bracket (which holds the module and the mat).

Power Outlets Description and Operation

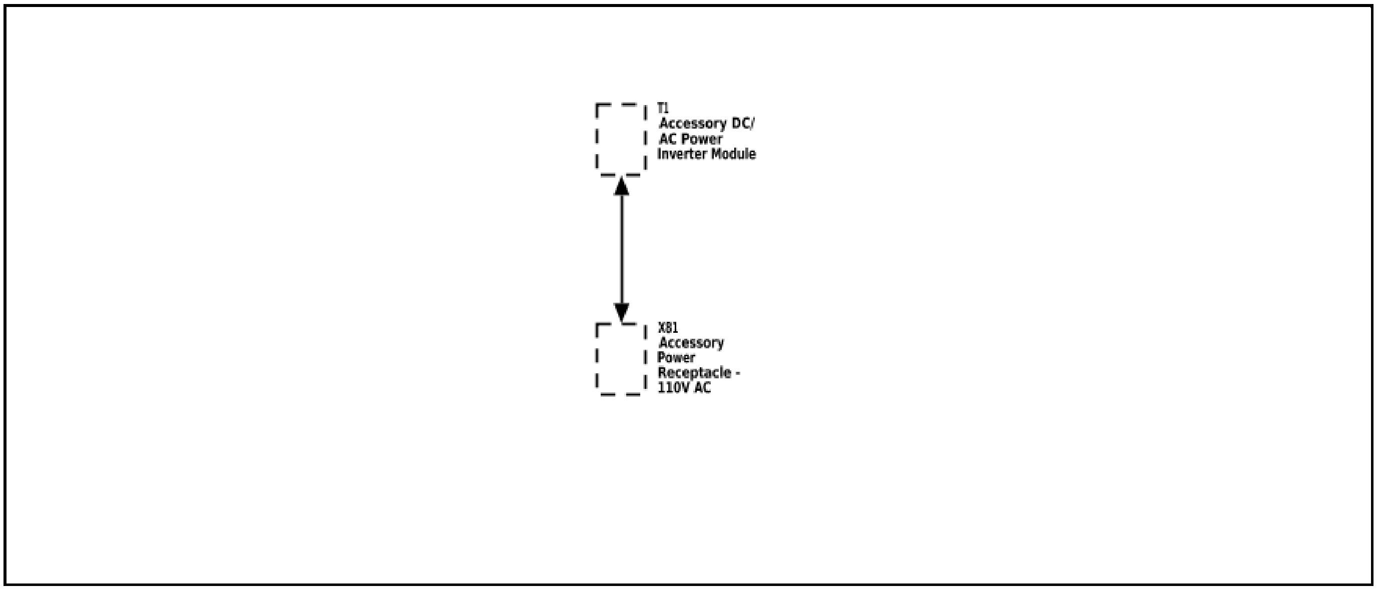
12 Volt Power Outlet Receptacle Description and Operation

The 12 V accessory power receptacles are supplied with power by the accessory relay.

The vehicle is fitted with a cigarette lighter and/or with a 12 V accessory power receptacle. The cigarette lighter and accessory power outlets are controlled by an ignition operated relay. The accessory power receptacle and cigarette lighter are operational when the ignition is turned to either the On or the Accessories positions. To operate the cigarette lighter, press in the lighter knob. When the element is hot, the lighter automatically pops out and is ready for use.

110 Volt Power Outlet Receptacle System Description

Power Outlets Block Diagram



3403851

The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 110 V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 110 V at 60 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 110 V AC provides the usual connection for AC powered devices.

110 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 110 V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 110 V AC, the normally open switch in the accessory power receptacle – 110 V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 110 V AC switch, the inverter module begins to supply 110 V AC to the accessory power receptacle – 110 V AC after a 1.5 s delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

110 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 110 V circuit for a short to vehicle chassis ground. If a 110 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

110 Volt Power Outlet Receptacle Overload Shutdown

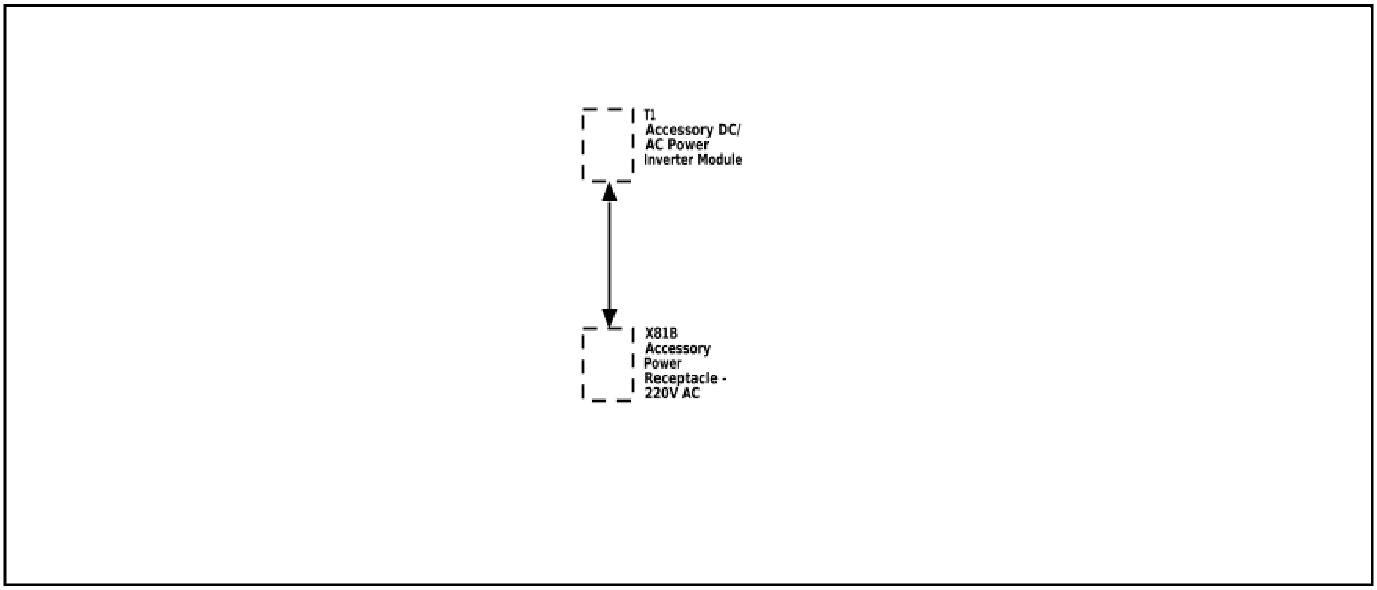
The accessory DC/AC power inverter module will turn OFF if the current in the 110 V circuit is greater than 3.8 A for 1 s , or 2.5 A for 10 s . The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

110 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the outlet, and then plugged into the outlet.

230 Volt Power Outlet Receptacle System Description

Power Outlets Block Diagram



3403853

The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 220V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 220–230 V at 50 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 220V AC provides the usual connection for AC powered devices.

230 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 220V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 220V AC, the normally open switch in the accessory power receptacle – 220V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 220V AC switch, the inverter module begins to supply 220–230 V AC to the accessory power receptacle – 220V AC after a 1.5 second delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

230 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 230 V circuit for a short to vehicle chassis ground. If a 230 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 s delay.

230 Volt Power Outlet Receptacle Overload Shutdown

The accessory AC/DC power control module will turn OFF if the current in the 230 V circuit is greater than 3.8 A for 1 second, or 2.5 A for 10 seconds. The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 second delay.

230 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the accessory power receptacle – 220V AC, and then plugged into the accessory power receptacle – 220V AC.

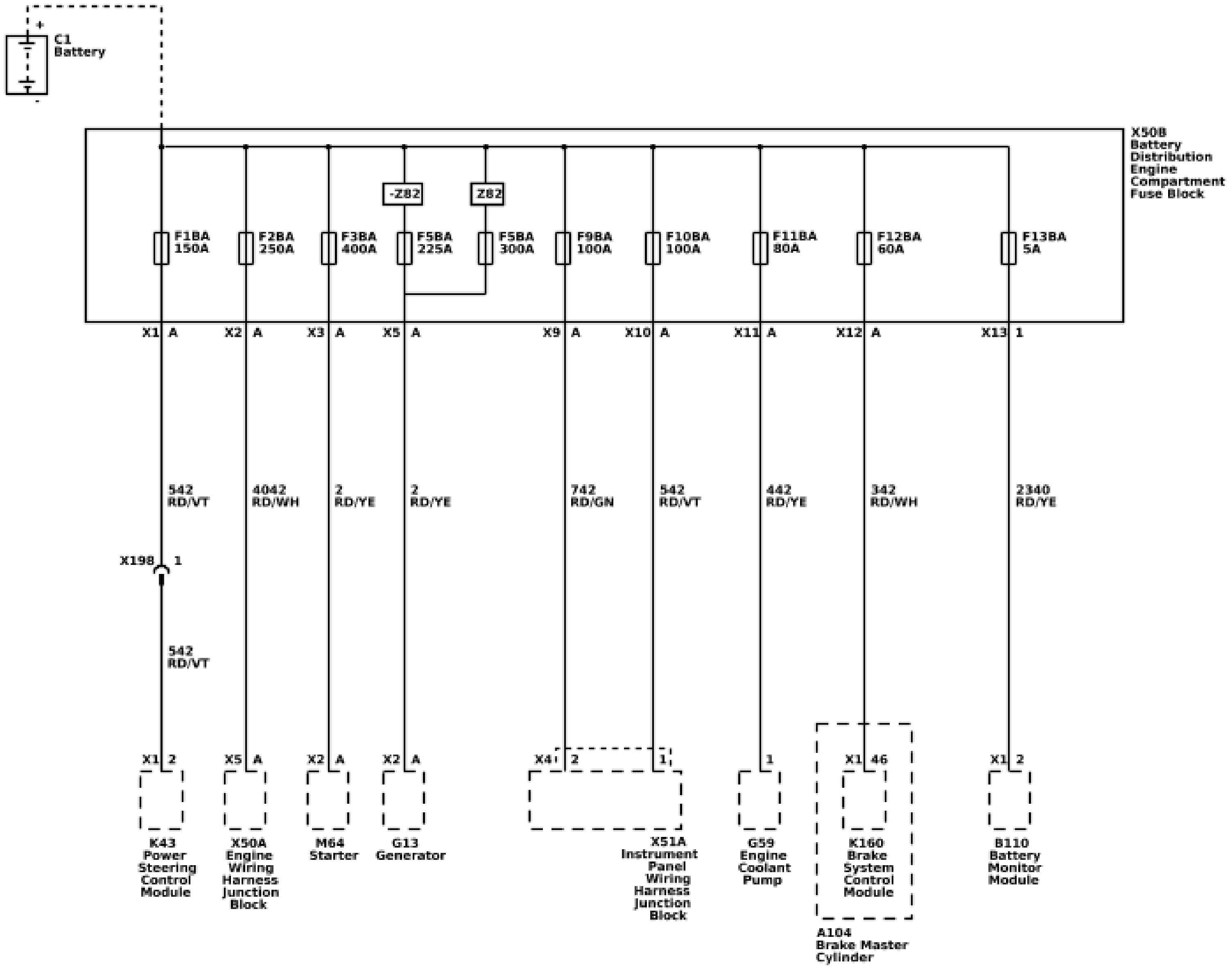
USB Receptacle Description and Operation (USS)

The vehicle is fitted with USB charge port receptacles at the rear of the floor console. These USB receptacles are for charging devices only. The USB receptacles are controlled by an ignition operated relay and are operational when the ignition is turned to either the On or the Accessories positions.

Wiring Systems and Power Management

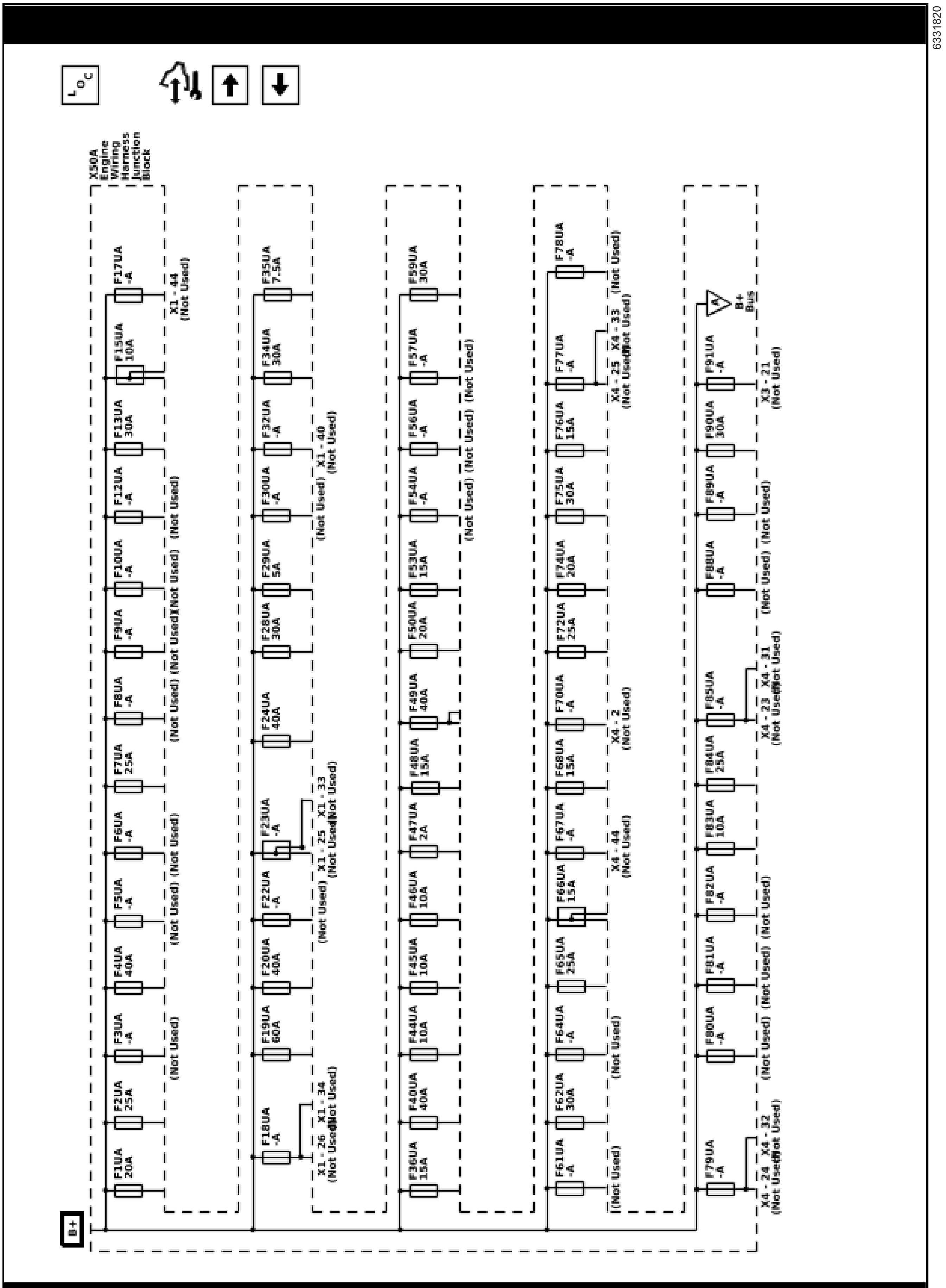
Schematic and Routing Diagrams

Power Distribution Schematics (B+ Bus - X50B Battery Distribution Engine Compartment Fuse Block)

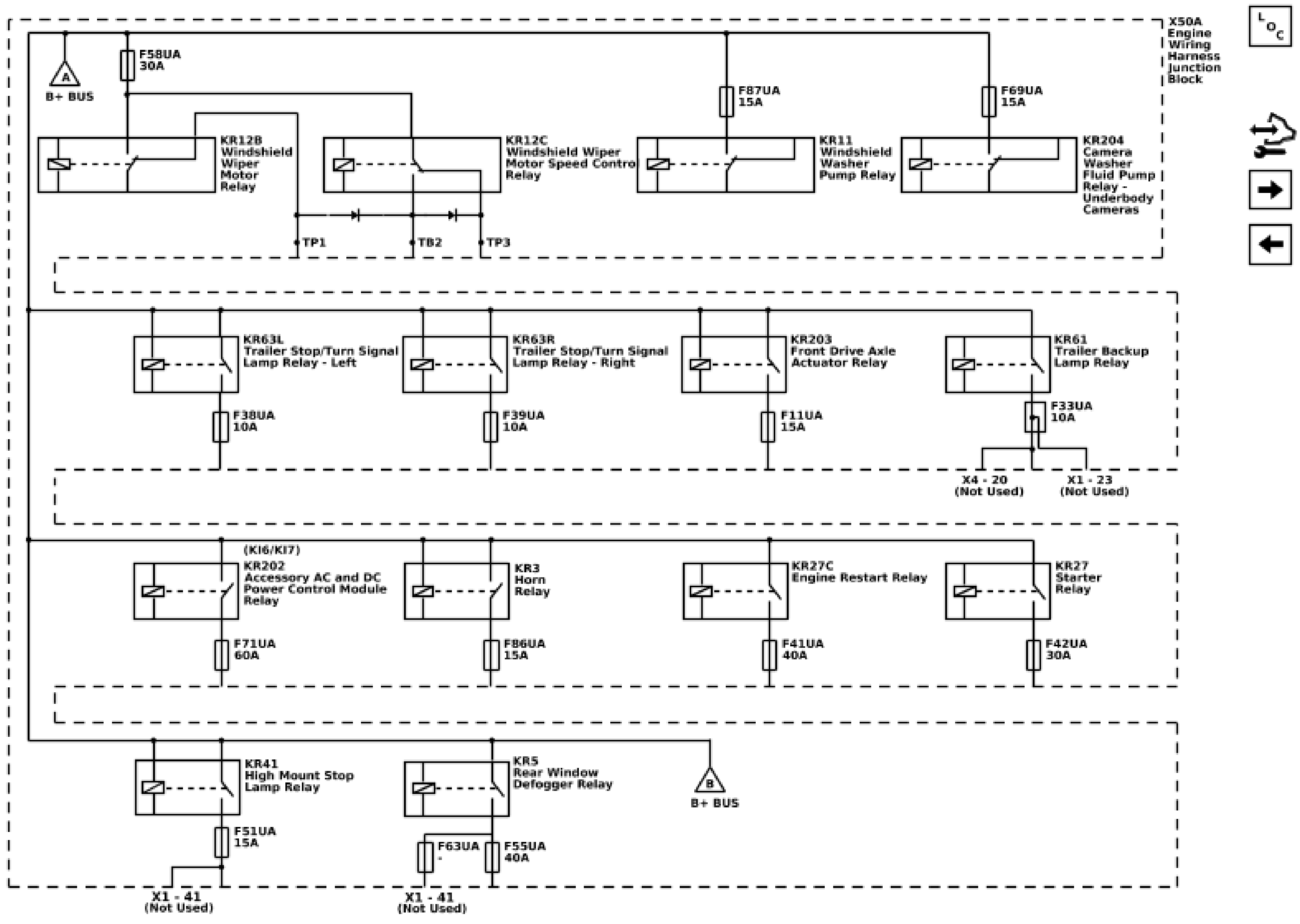

C1
Battery
+
-
X50B
Battery
Distribution
Engine
Compartment
Fuse Block
-Z82
Z82
F1BA 150A
F2BA 250A
F3BA 400A
F5BA 225A
F5BA 300A
F9BA 100A
F10BA 100A
F11BA 80A
F12BA 60A
F13BA 5A
X1 A
X2 A
X3 A
X5 A
X9 A
X10 A
X11 A
X12 A
X13 1
542 RD/VT
4042 RD/WH
2 RD/YE
2 RD/YE
742 RD/GN
542 RD/VT
442 RD/YE
342 RD/WH
2340 RD/YE
X198 1
542 RD/VT
X1 2
X5 A
X2 A
X2 A
X4 2
1
1
X1 46
X1 2
K43 Power Steering Control Module
X50A Engine Wiring Harness Junction Block
M64 Starter
G13 Generator
X51A Instrument Panel Wiring Harness Junction Block
G59 Engine Coolant Pump
K160 Brake System Control Module
A104 Brake Master Cylinder
B110 Battery Monitor Module

6331819

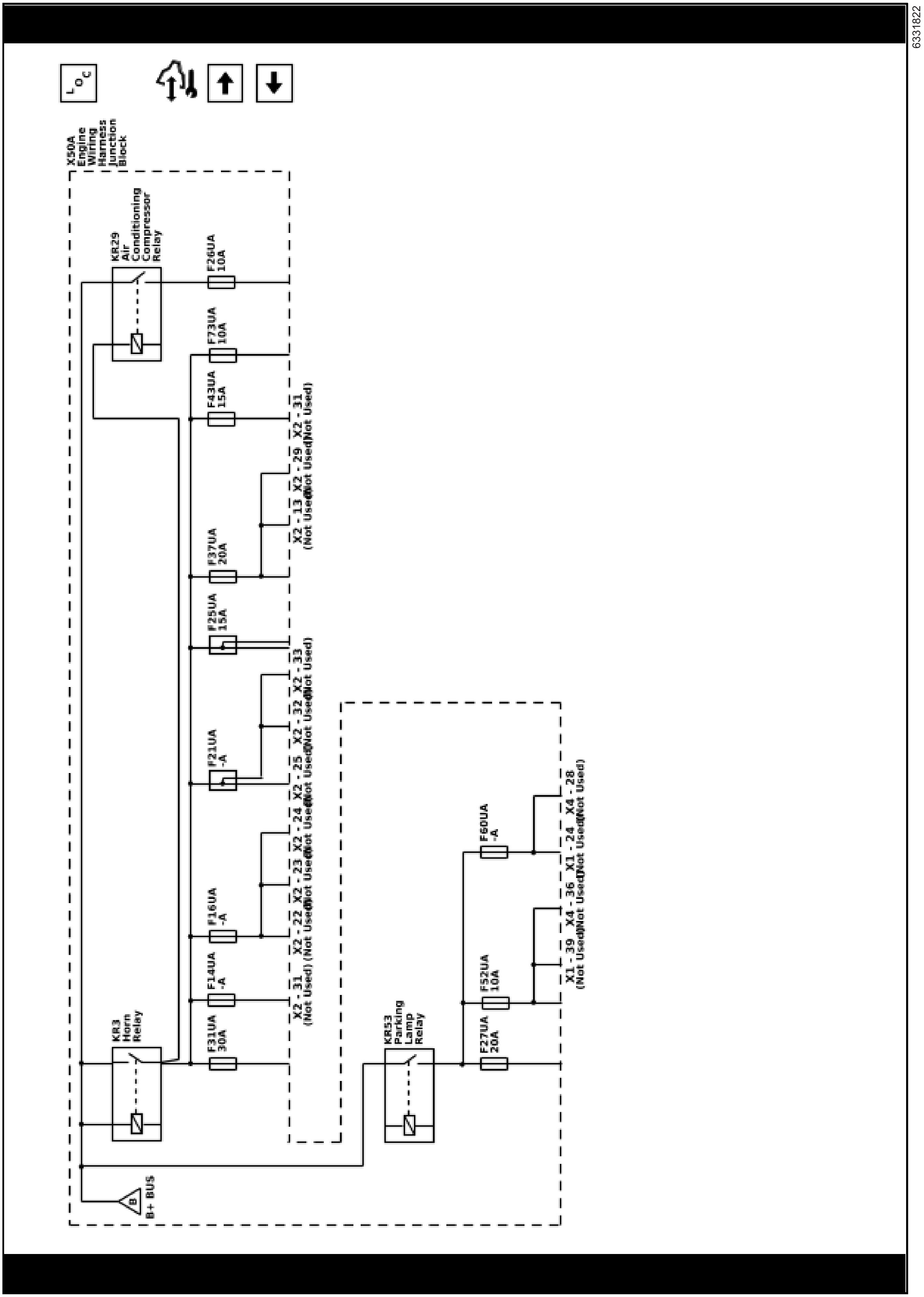
Power Distribution Schematics (B+ Bus - X50A Engine Wiring Harness Junction Block - Fuses)


6331820
X50A Engine Wiring Harness Junction Block
B+
F1UA 20A
F2UA 25A
F3UA -A
F4UA 40A
F5UA -A
F6UA -A
F7UA 25A
F8UA -A
F9UA -A
F10UA -A
F12UA -A
F13UA 30A
F15UA 10A
F17UA -A
X1 - 44 (Not Used)
(Not Used)
F18UA -A
F19UA 60A
F20UA 40A
F22UA -A
F23UA -A
F24UA 40A
F28UA 30A
F29UA 5A
F30UA -A
F32UA -A
F34UA 30A
F35UA 7.5A
X1 - 26 (Not Used)
X1 - 34 (Not Used)
X1 - 25 (Not Used)
X1 - 33 (Not Used)
X1 - 40 (Not Used)
F36UA 15A
F40UA 40A
F44UA 10A
F45UA 10A
F46UA 10A
F47UA 2A
F48UA 15A
F49UA 40A
F50UA 20A
F53UA 15A
F54UA -A
F56UA -A
F57UA -A
F59UA 30A
F61UA -A
F62UA 30A
F64UA -A
F65UA 25A
F66UA 15A
F67UA -A
F68UA 15A
F70UA -A
F72UA 25A
F74UA 20A
F75UA 30A
F76UA 15A
F77UA -A
F78UA -A
X4 - 44 (Not Used)
X4 - 2 (Not Used)
X4 - 25 (Not Used)
X4 - 33 (Not Used)
F79UA -A
F80UA -A
F81UA -A
F82UA -A
F83UA 10A
F84UA 25A
F85UA -A
F88UA -A
F89UA -A
F90UA 30A
F91UA -A
X4 - 24 (Not Used)
X4 - 32 (Not Used)
X4 - 23 (Not Used)
X4 - 31 (Not Used)
X3 - 21 (Not Used)
A
B+ Bus

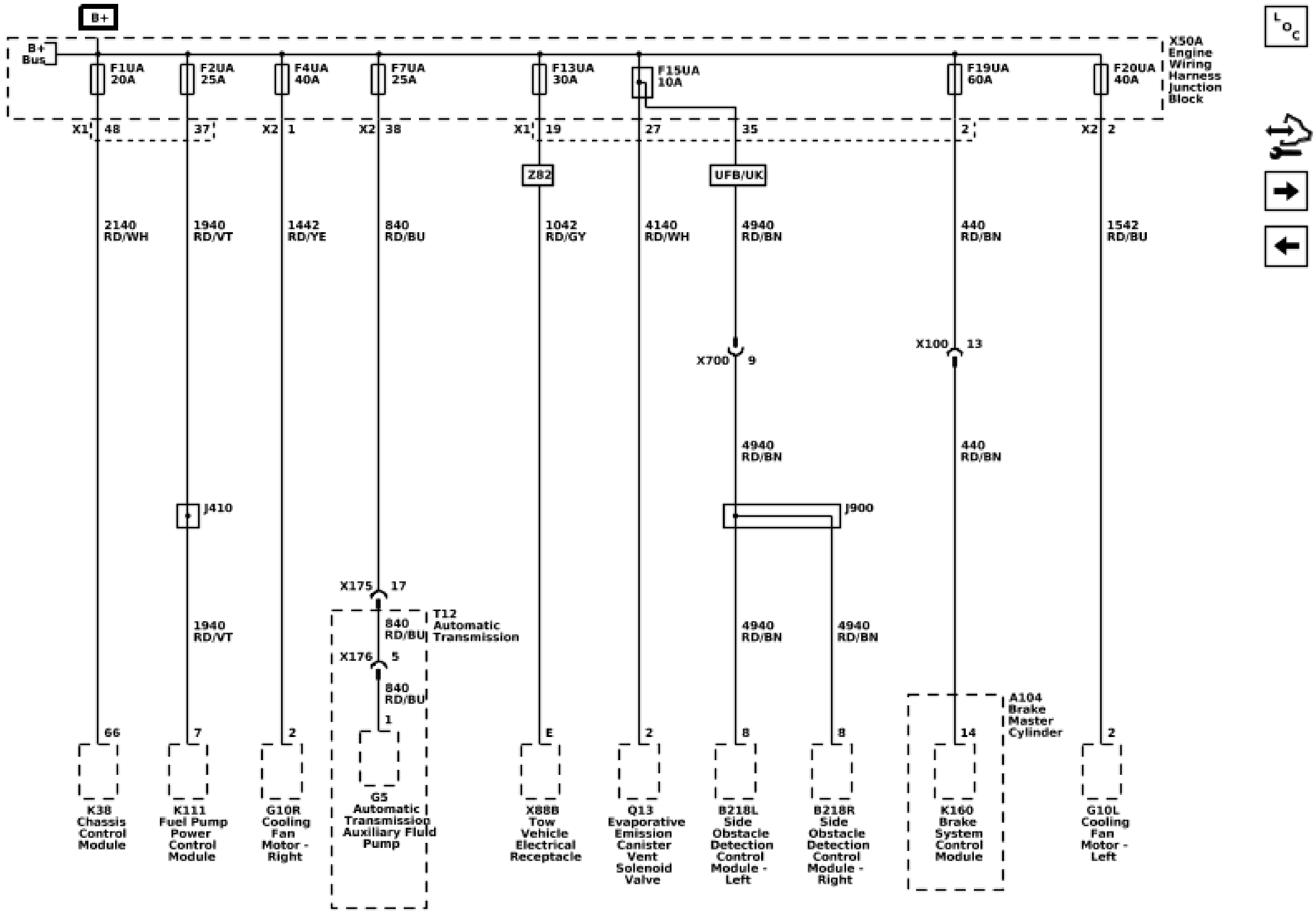
Power Distribution Schematics (B+ Bus - X50A Engine Wiring Harness Junction Block - Relays 1 of 2)


X50A Engine Wiring Harness Junction Block
A B+ BUS
F58UA 30A
KR12B Windshield Wiper Motor Relay
KR12C Windshield Wiper Motor Speed Contro Relay
F87UA 15A
KR11 Windshield Washer Pump Relay
F69UA 15A
KR204 Camera Washer Fluid Pump Relay - Underbody Cameras
TP1
TB2
TP3
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
F38UA 10A
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
F39UA 10A
KR203 Front Drive Axle Actuator Relay
F11UA 15A
KR61 Trailer Backup Lamp Relay
F33UA 10A
X4 - 20 (Not Used)
X1 - 23 (Not Used)
(KI6/KI7) KR202 Accessory AC and DC Power Control Module Relay
F71UA 60A
KR3 Horn Relay
F86UA 15A
KR27C Engine Restart Relay
F41UA 40A
KR27 Starter Relay
F42UA 30A
KR41 High Mount Stop Lamp Relay
F51UA 15A
X1 - 41 (Not Used)
KR5 Rear Window Defogger Relay
F63UA -
F55UA 40A
X1 - 41 (Not Used)
B B+ BUS
L O C
6331821

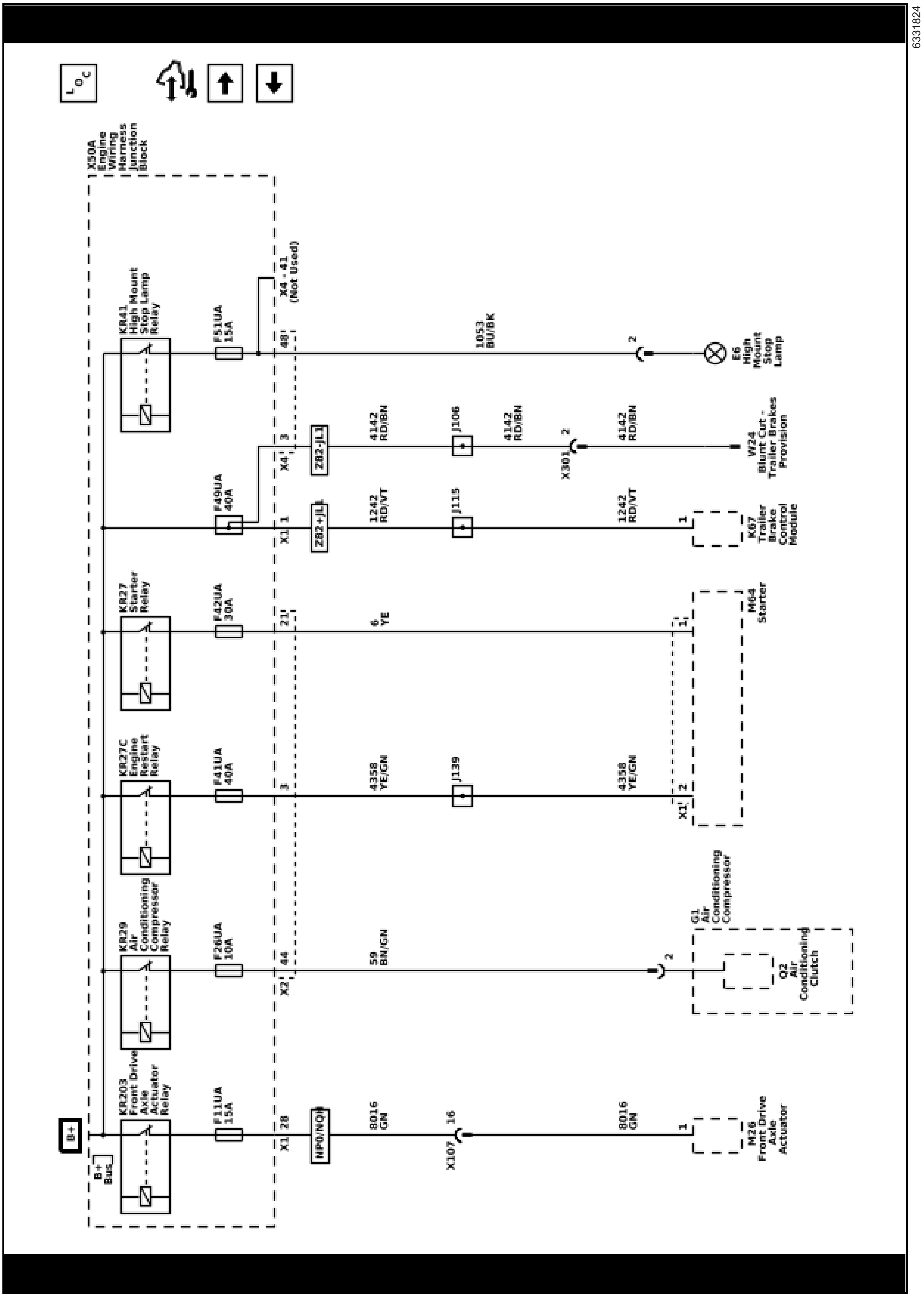
Power Distribution Schematics (B+ Bus - X50A Engine Wiring Harness Junction Block - Relays 2 of 2)


6331822
X50A Engine Wiring Harness Junction Block
KR29 Air Conditioning Compressor Relay
F26UA 10A
F73UA 10A
F43UA 15A
X2 - 31 (Not Used)
X2 - 29 (Not Used)
X2 - 13 (Not Used)
F37UA 20A
F25UA 15A
X2 - 33 (Not Used)
X2 - 32 (Not Used)
X2 - 25 (Not Used)
F21UA -A
X2 - 24 (Not Used)
X2 - 23 (Not Used)
X2 - 22 (Not Used)
F16UA -A
F14UA -A
X2 - 31 (Not Used)
F31UA 30A
KR3 Horn Relay
B
B+ BUS
KR53 Parking Lamp Relay
F27UA 20A
F52UA 10A
F60UA -A
X1 - 39 (Not Used)
X4 - 36 (Not Used)
X1 - 24 (Not Used)
X4 - 28 (Not Used)

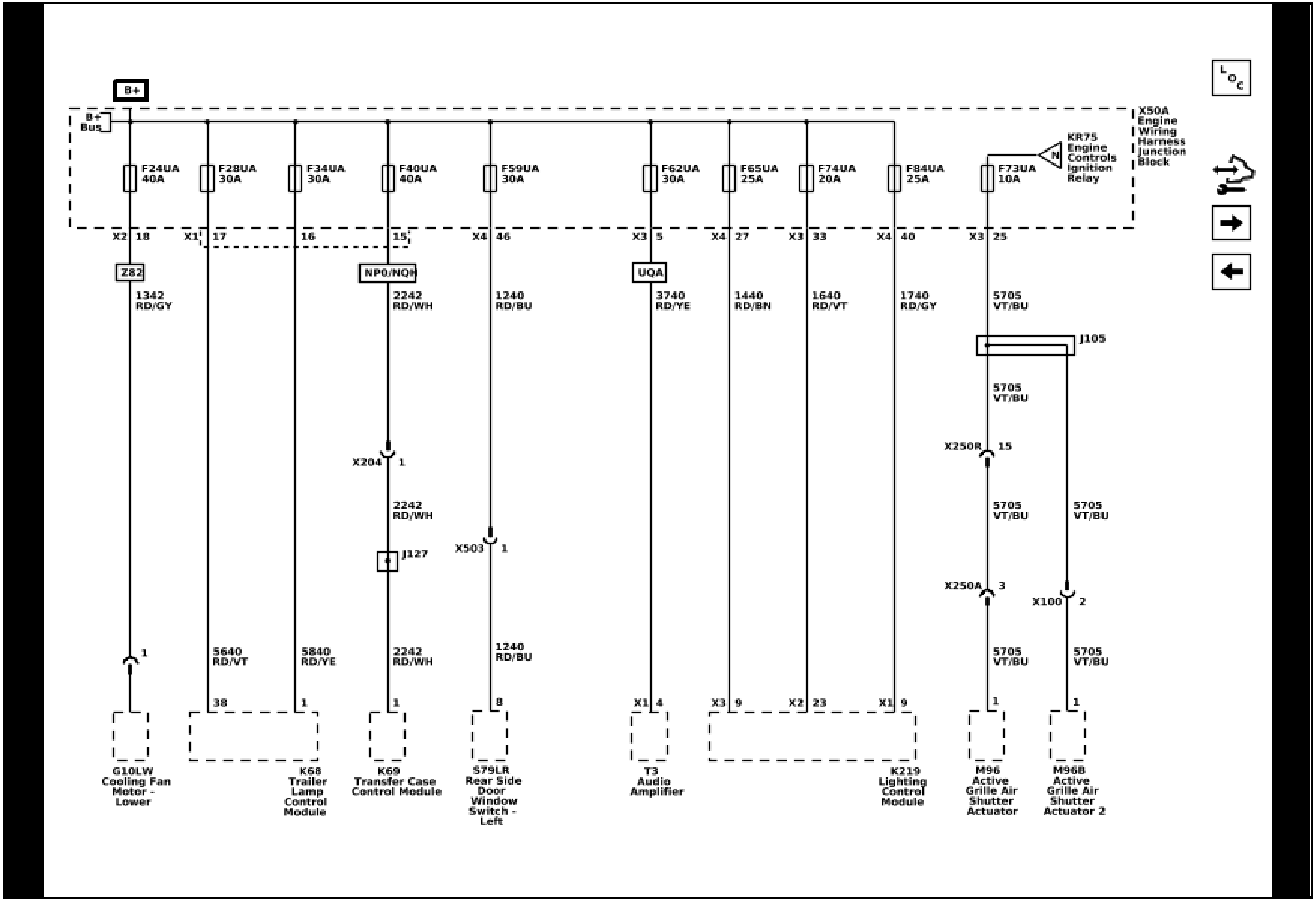
Power Distribution Schematics (F1UA, F2UA, F4UA, F7UA, F13UA, F15UA, F19UA,and F20UA Fuses)


B+
B+ Bus
X50A Engine Wiring Harness Junction Block
F1UA 20A
F2UA 25A
F4UA 40A
F7UA 25A
F13UA 30A
F15UA 10A
F19UA 60A
F20UA 40A
X1 48
37
X2 1
X2 38
X1 19
27
35
2
X2 2
Z82
UFB/UK
2140 RD/WH
1940 RD/VT
1442 RD/YE
840 RD/BU
1042 RD/GY
4140 RD/WH
4940 RD/BN
440 RD/BN
1542 RD/BU
X700 9
X100 13
J410
J900
X175 17
X176 5
T12 Automatic Transmission
A104 Brake Master Cylinder
66
7
2
1
E
2
8
8
14
2
K38 Chassis Control Module
K111 Fuel Pump Power Control Module
G10R Cooling Fan Motor - Right
G5 Automatic Transmission Auxiliary Fluid Pump
X88B Tow Vehicle Electrical Receptacle
Q13 Evaporative Emission Canister Vent Solenoid Valve
B218L Side Obstacle Detection Control Module - Left
B218R Side Obstacle Detection Control Module - Right
K160 Brake System Control Module
G10L Cooling Fan Motor - Left
LOC
6331823

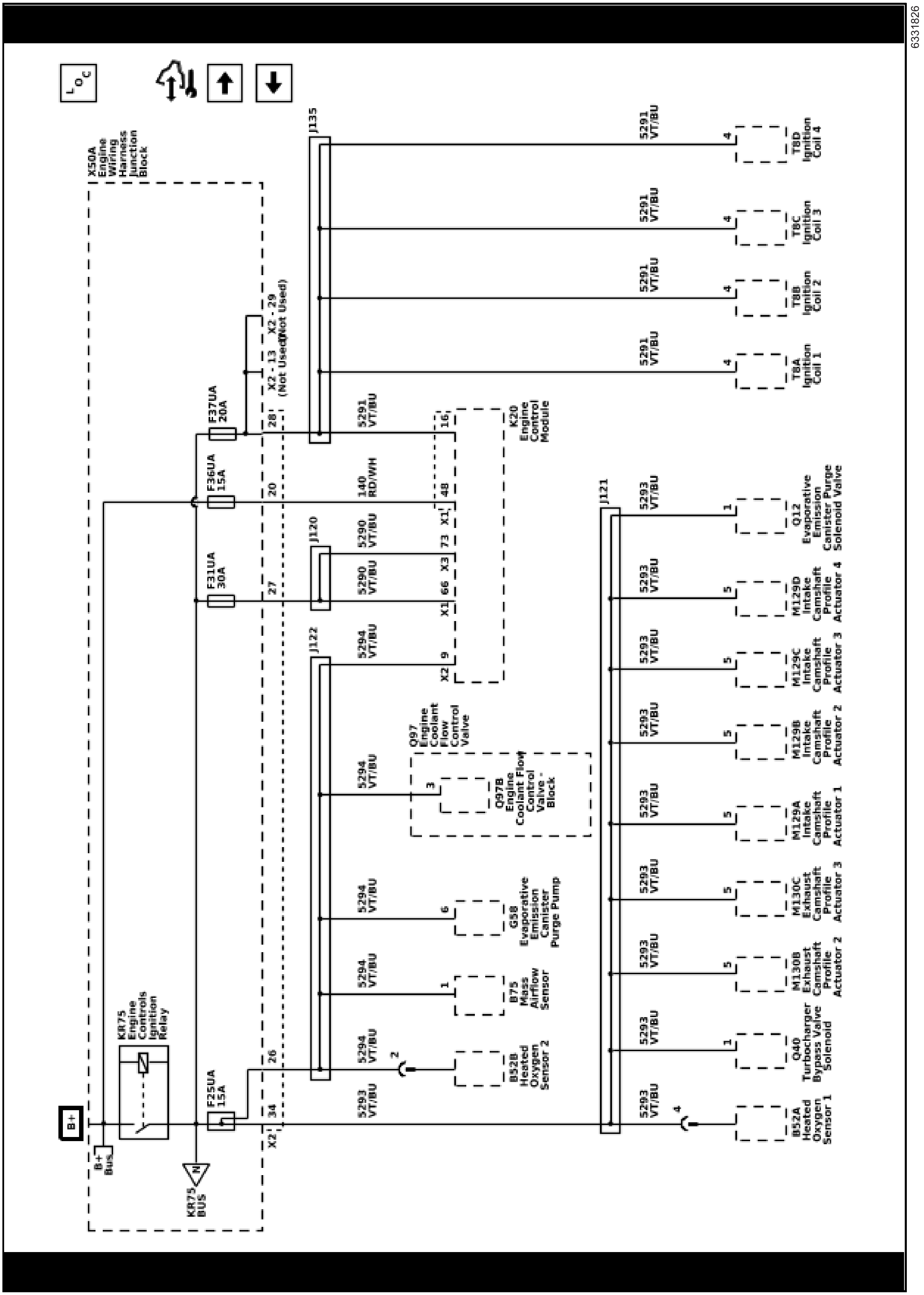
Power Distribution Schematics (F11UA, F26UA, F41UA, F42UA, F49UA and F51UA Fuses)


6331824
B+
B+ Bus
X50A Engine Wiring Harness Junction Block
KR203 Front Drive Axle Actuator Relay
KR29 Air Conditioning Compressor Relay
KR27C Engine Restart Relay
KR27 Starter Relay
KR41 High Mount Stop Lamp Relay
F11UA 15A
F26UA 10A
F41UA 40A
F42UA 30A
F49UA 40A
F51UA 15A
X1 28
X2 44
3
21
X1 1
X4 3
48
X4 - 41 (Not Used)
NP0/NQH
Z82+JL1
Z82-JL1
8016 GN
59 BN/GN
4358 YE/GN
6 YE
1242 RD/VT
4142 RD/BN
1053 BU/BK
X107 16
J139
J115
J106
X301 2
2
1
X1 2
M26 Front Drive Axle Actuator
G1 Air Conditioning Compressor
Q2 Air Conditioning Clutch
M64 Starter
K67 Trailer Brake Control Module
W24 Blunt Cut - Trailer Brakes Provision
E6 High Mount Stop Lamp

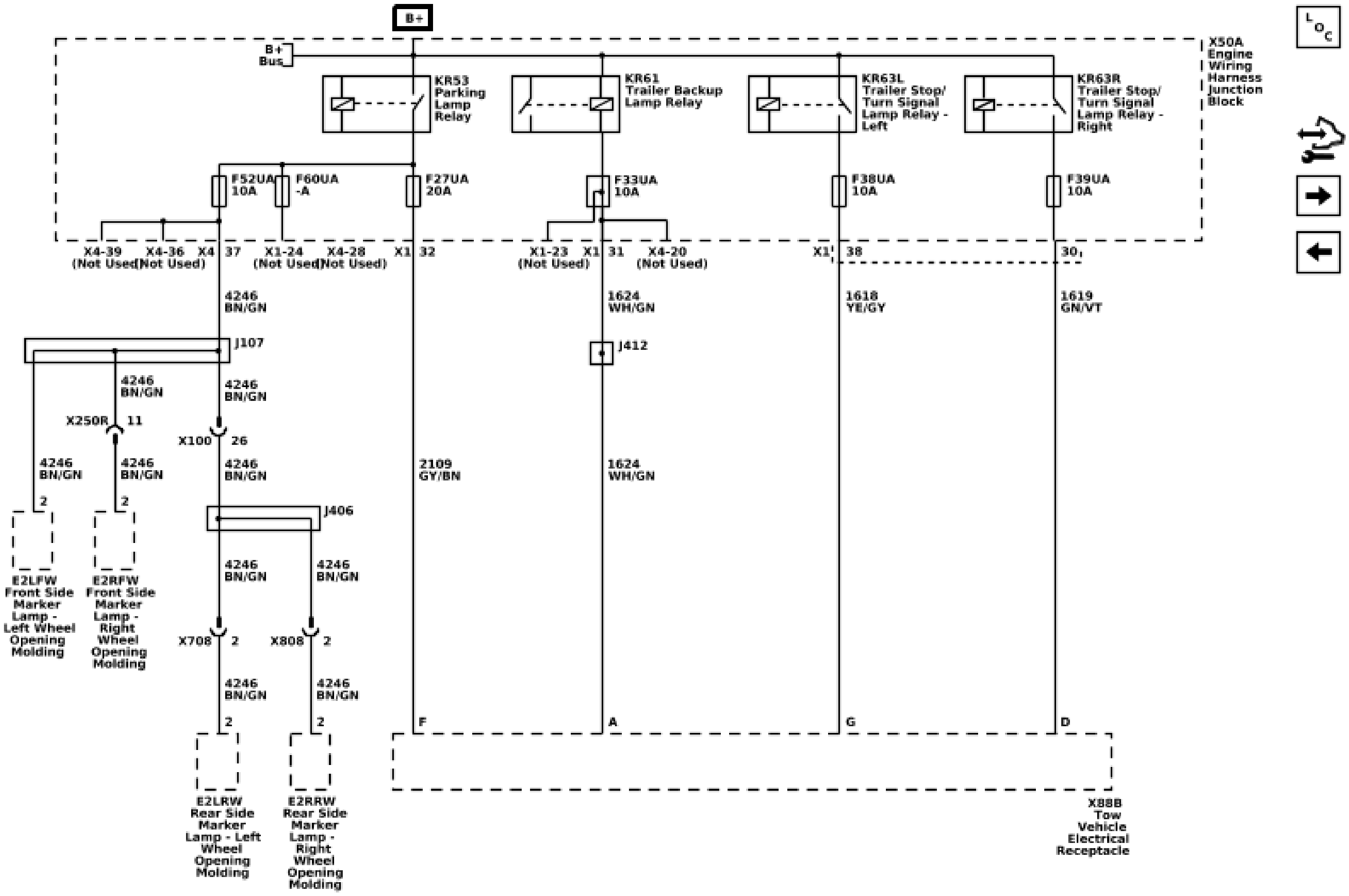
Power Distribution Schematics (F24UA, F28UA, F34UA, F40UA, F59UA, F62UA, F65UA, F73UA, F74UA, and F84UA Fuses)


B+
B+ Bus
X50A Engine Wiring Harness Junction Block
KR75 Engine Controls Ignition Relay
N
F24UA 40A
F28UA 30A
F34UA 30A
F40UA 40A
F59UA 30A
F62UA 30A
F65UA 25A
F74UA 20A
F84UA 25A
F73UA 10A
X2 18
X1 17
16
15
X4 46
X3 5
X4 27
X3 33
X4 40
X3 25
Z82
NP0/NQH
UQA
1342 RD/GY
2242 RD/WH
1240 RD/BU
3740 RD/YE
1440 RD/BN
1640 RD/VT
1740 RD/GY
5705 VT/BU
J105
X204 1
J127
X503 1
X250R 15
X250A 3
X100 2
1
5640 RD/VT
5840 RD/YE
38
8
X1 4
X3 9
X2 23
X1 9
G10LW Cooling Fan Motor - Lower
K68 Trailer Lamp Control Module
K69 Transfer Case Control Module
S79LR Rear Side Door Window Switch - Left
T3 Audio Amplifier
K219 Lighting Control Module
M96 Active Grille Air Shutter Actuator
M96B Active Grille Air Shutter Actuator 2
6331825

Power Distribution Schematics (F25UA, F31UA, F36UA, and F37UA)

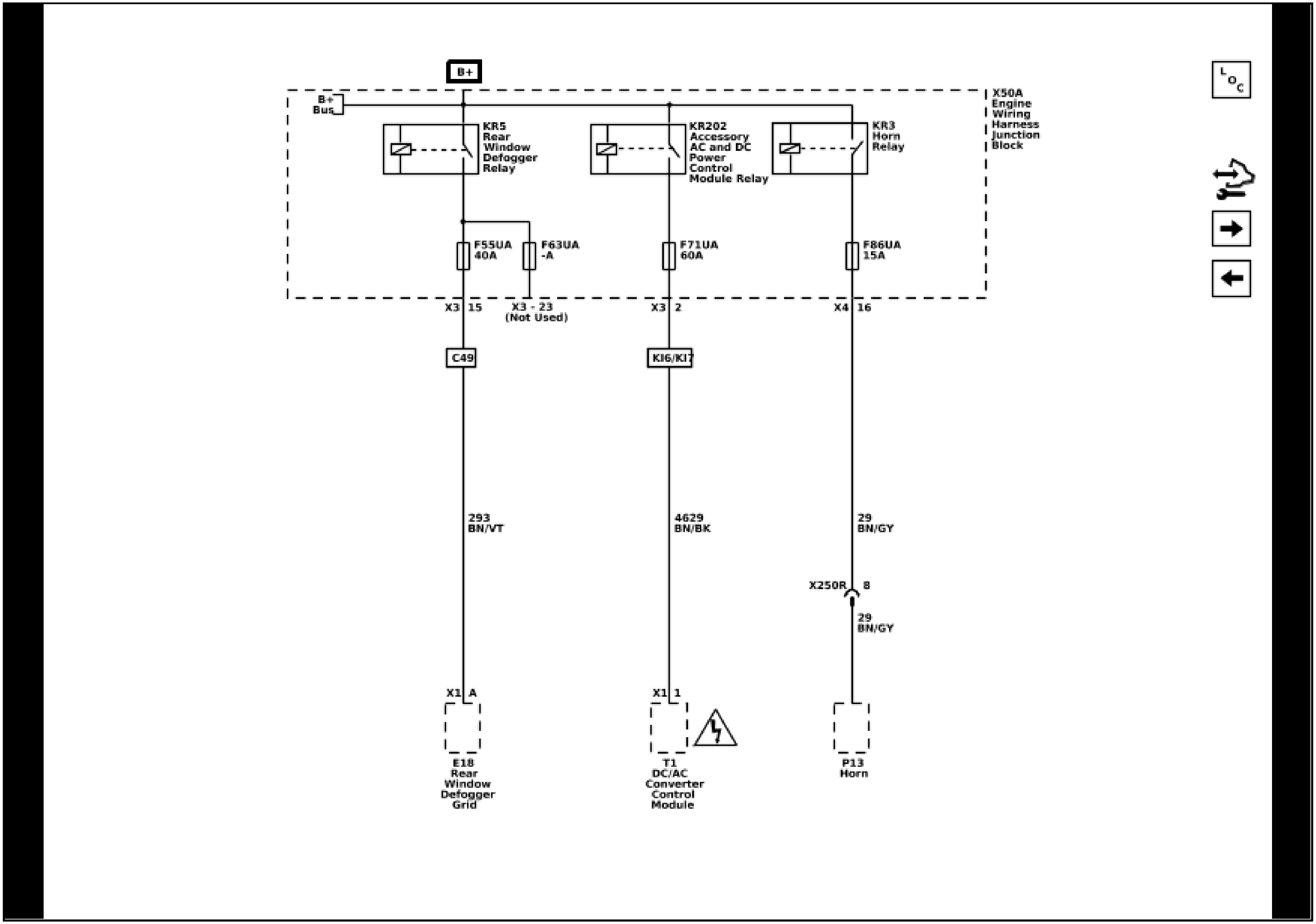

6331826
X50A Engine Wiring Harness Junction Block
B+
B+ Bus
KR75 Engine Controls Ignition Relay
KR75 BUS
F25UA 15A
F31UA 30A
F36UA 15A
F37UA 20A
X2 34
26
27
20
28
X2 - 13 (Not Used)
X2 - 29 (Not Used)
J135
J120
J122
J121
5291 VT/BU
140 RD/WH
5290 VT/BU
5294 VT/BU
5293 VT/BU
K20 Engine Control Module
X1 16
X1 48
X3 73
X1 66
X2 9
T8A Ignition Coil 1
T8B Ignition Coil 2
T8C Ignition Coil 3
T8D Ignition Coil 4
4
Q97 Engine Coolant Flow Control Valve
3
Q97B Engine Coolant Flow Control Valve - Block
6
G58 Evaporative Emission Canister Purge Pump
1
B75 Mass Airflow Sensor
2
B52B Heated Oxygen Sensor 2
B52A Heated Oxygen Sensor 1
Q40 Turbocharger Bypass Valve Solenoid
5
M130B Exhaust Camshaft Profile Actuator 2
M130C Exhaust Camshaft Profile Actuator 3
M129A Intake Camshaft Profile Actuator 1
M129B Intake Camshaft Profile Actuator 2
M129C Intake Camshaft Profile Actuator 3
M129D Intake Camshaft Profile Actuator 4
Q12 Evaporative Emission Canister Purge Solenoid Valve

Power Distribution Schematics (F27UA, F33UA, F38UA, F39UA, F52UA, and F60UA Fuses)

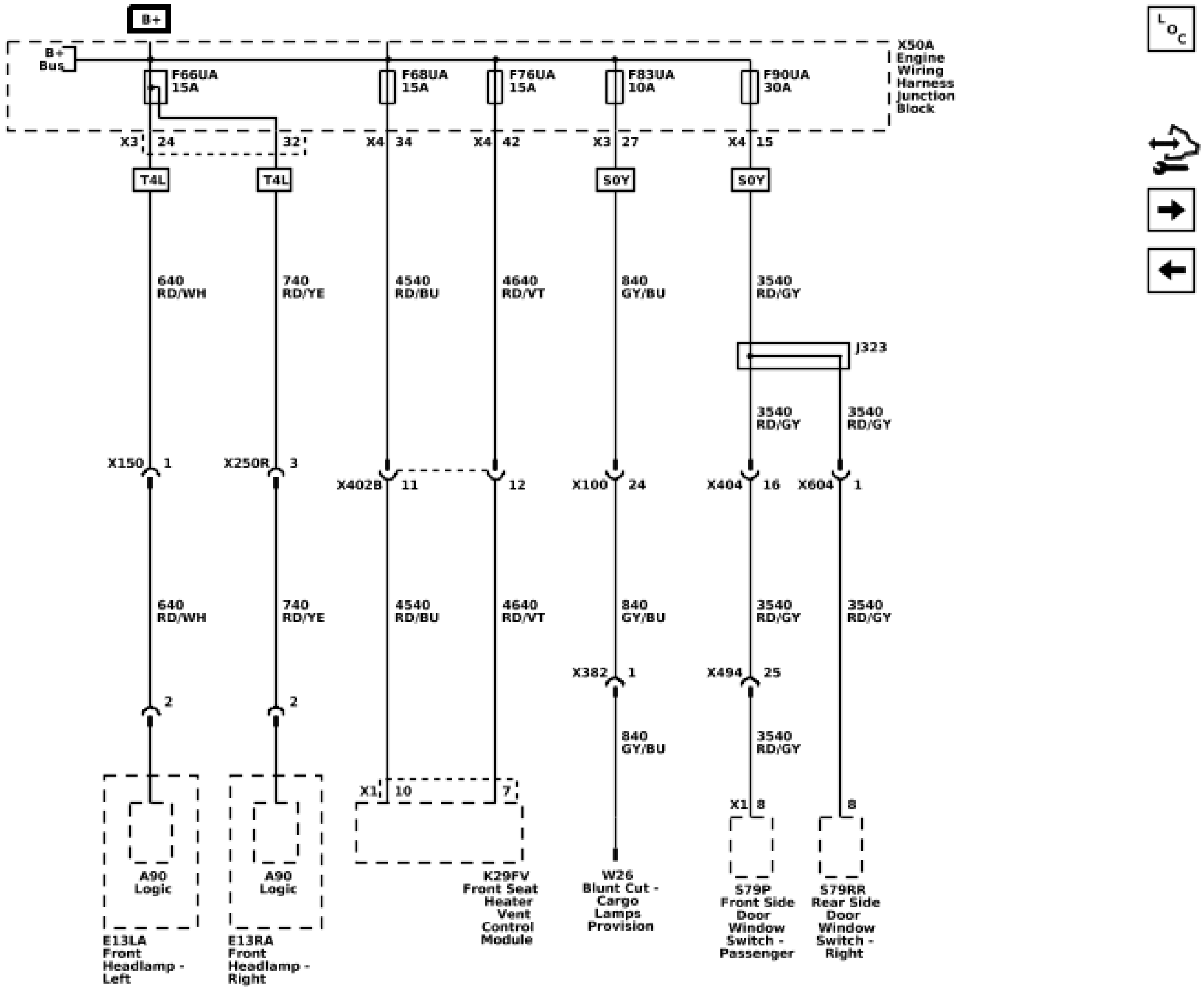

B+
B+ Bus
X50A Engine Wiring Harness Junction Block
KR53 Parking Lamp Relay
KR61 Trailer Backup Lamp Relay
KR63L Trailer Stop/ Turn Signal Lamp Relay - Left
KR63R Trailer Stop/ Turn Signal Lamp Relay - Right
F52UA 10A
F60UA -A
F27UA 20A
F33UA 10A
F38UA 10A
F39UA 10A
X4-39 (Not Used)
X4-36 (Not Used)
X4 37
X1-24 (Not Used)
X4-28 (Not Used)
X1 32
X1-23 (Not Used)
X1 31
X4-20 (Not Used)
X1 38
30
4246 BN/GN
1624 WH/GN
1618 YE/GY
1619 GN/VT
J107
J412
X250R 11
X100 26
2109 GY/BN
J406
X708 2
X808 2
2
E2LFW Front Side Marker Lamp - Left Wheel Opening Molding
E2RFW Front Side Marker Lamp - Right Wheel Opening Molding
E2LRW Rear Side Marker Lamp - Left Wheel Opening Molding
E2RRW Rear Side Marker Lamp - Right Wheel Opening Molding
F
A
G
D
X88B Tow Vehicle Electrical Receptacle
L O C

6331827

Power Distribution Schematics (F55UA, F63UA, F71UA, and F86UA Fuses)

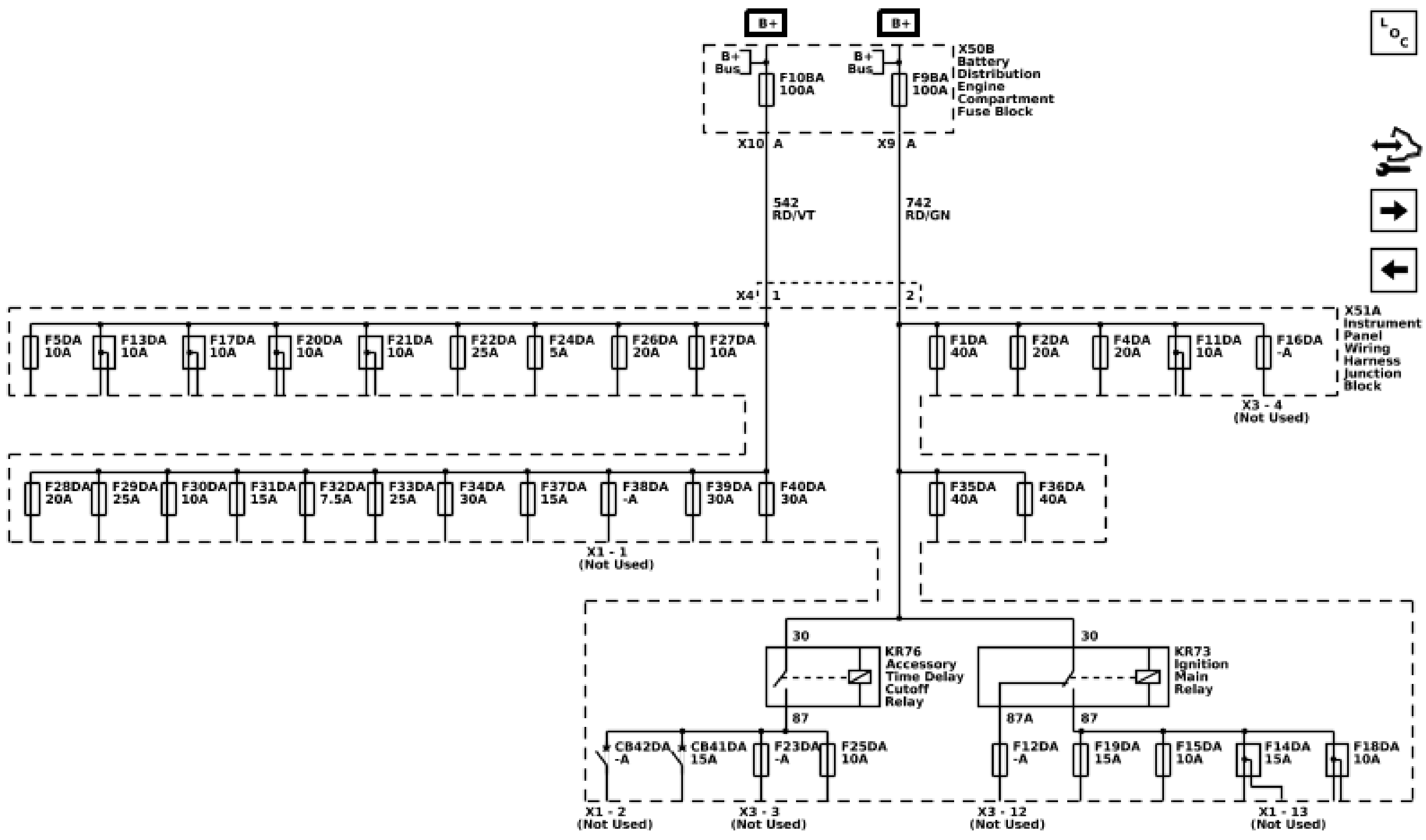

B+
B+ Bus
X50A Engine Wiring Harness Junction Block
KR5 Rear Window Defogger Relay
KR202 Accessory AC and DC Power Control Module Relay
KR3 Horn Relay
F55UA 40A
F63UA -A
F71UA 60A
F86UA 15A
X3 15
X3 - 23 (Not Used)
X3 2
X4 16
C49
KI6/KI7
293 BN/VT
4629 BN/BK
29 BN/GY
X250R 8
29 BN/GY
X1 A
X1 1
E18 Rear Window Defogger Grid
T1 DC/AC Converter Control Module
P13 Horn
6331828

Power Distribution Schematics (F66UA, F68UA, F76UA, F83UA and F90UA Fuses)


B+
B+ Bus
X50A Engine Wiring Harness Junction Block
F66UA 15A
F68UA 15A
F76UA 15A
F83UA 10A
F90UA 30A
X3 24
32
X4 34
X4 42
X3 27
X4 15
T4L
T4L
S0Y
S0Y
640 RD/WH
740 RD/YE
4540 RD/BU
4640 RD/VT
840 GY/BU
3540 RD/GY
J323
3540 RD/GY
3540 RD/GY
X150 1
X250R 3
X402B 11
12
X100 24
X404 16
X604 1
640 RD/WH
740 RD/YE
4540 RD/BU
4640 RD/VT
840 GY/BU
3540 RD/GY
3540 RD/GY
X382 1
X494 25
2
2
840 GY/BU
3540 RD/GY
X1 10
7
X1 8
8
A90 Logic
A90 Logic
E13LA Front Headlamp - Left
E13RA Front Headlamp - Right
K29FV Front Seat Heater Vent Control Module
W26 Blunt Cut - Cargo Lamps Provision
S79P Front Side Door Window Switch - Passenger
S79RR Rear Side Door Window Switch - Right
L O C

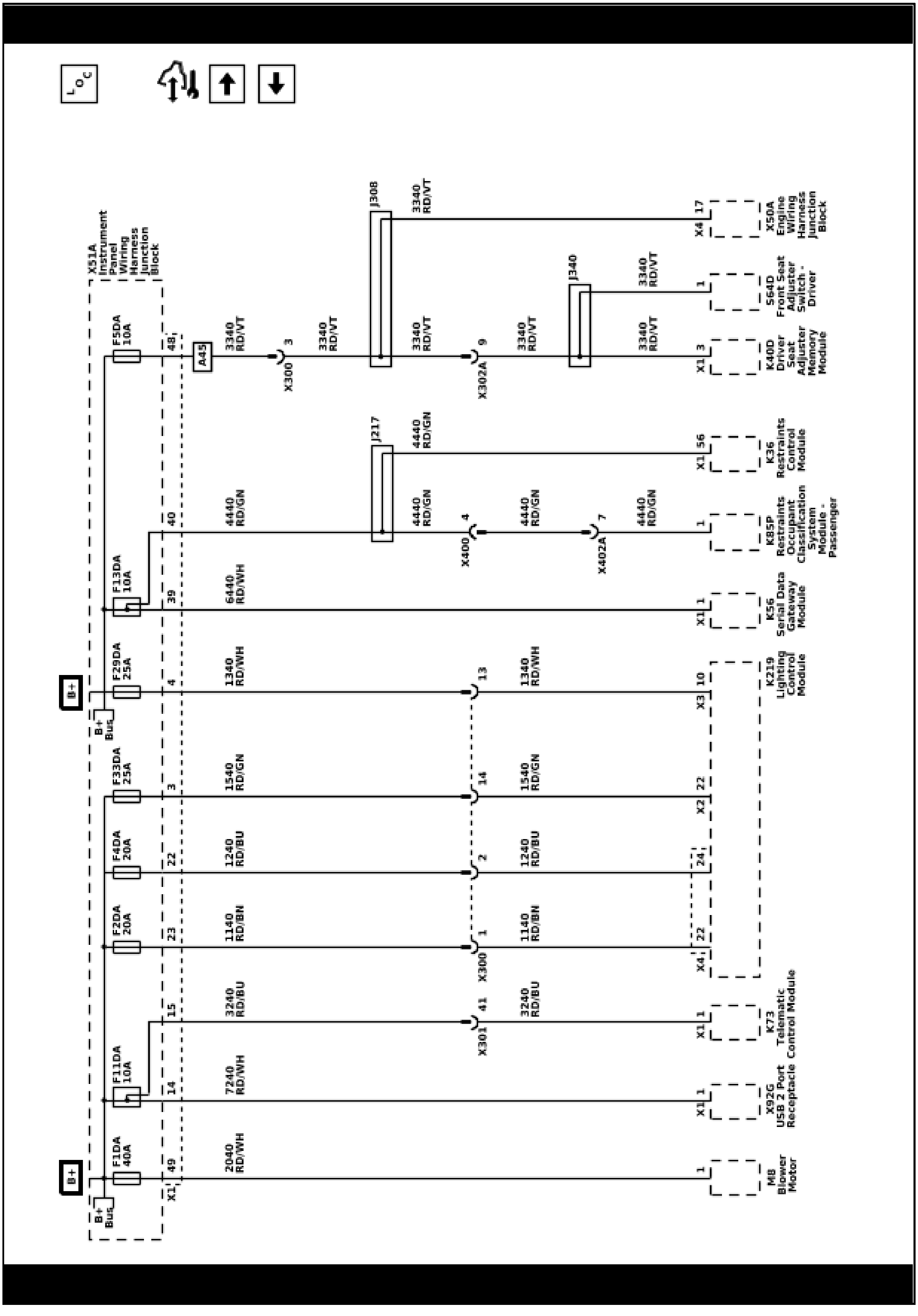
6331829

Power Distribution Schematics (B+ Bus - X51A Instrument Panel Wiring Harness Junction Block)


B+
B+
B+ Bus
F10BA 100A
B+ Bus
F9BA 100A
X50B Battery Distribution Engine Compartment Fuse Block
X10 A
X9 A
542 RD/VT
742 RD/GN
X4 1
2
F5DA 10A
F13DA 10A
F17DA 10A
F20DA 10A
F21DA 10A
F22DA 25A
F24DA 5A
F26DA 20A
F27DA 10A
F1DA 40A
F2DA 20A
F4DA 20A
F11DA 10A
F16DA -A
X51A Instrument Panel Wiring Harness Junction Block
X3 - 4 (Not Used)
F28DA 20A
F29DA 25A
F30DA 10A
F31DA 15A
F32DA 7.5A
F33DA 25A
F34DA 30A
F37DA 15A
F38DA -A
F39DA 30A
F40DA 30A
F35DA 40A
F36DA 40A
X1 - 1 (Not Used)
30
KR76 Accessory Time Delay Cutoff Relay
87
30
KR73 Ignition Main Relay
87A
87
CB42DA -A
CB41DA 15A
F23DA -A
F25DA 10A
F12DA -A
F19DA 15A
F15DA 10A
F14DA 15A
F18DA 10A
X1 - 2 (Not Used)
X3 - 3 (Not Used)
X3 - 12 (Not Used)
X1 - 13 (Not Used)

6331830

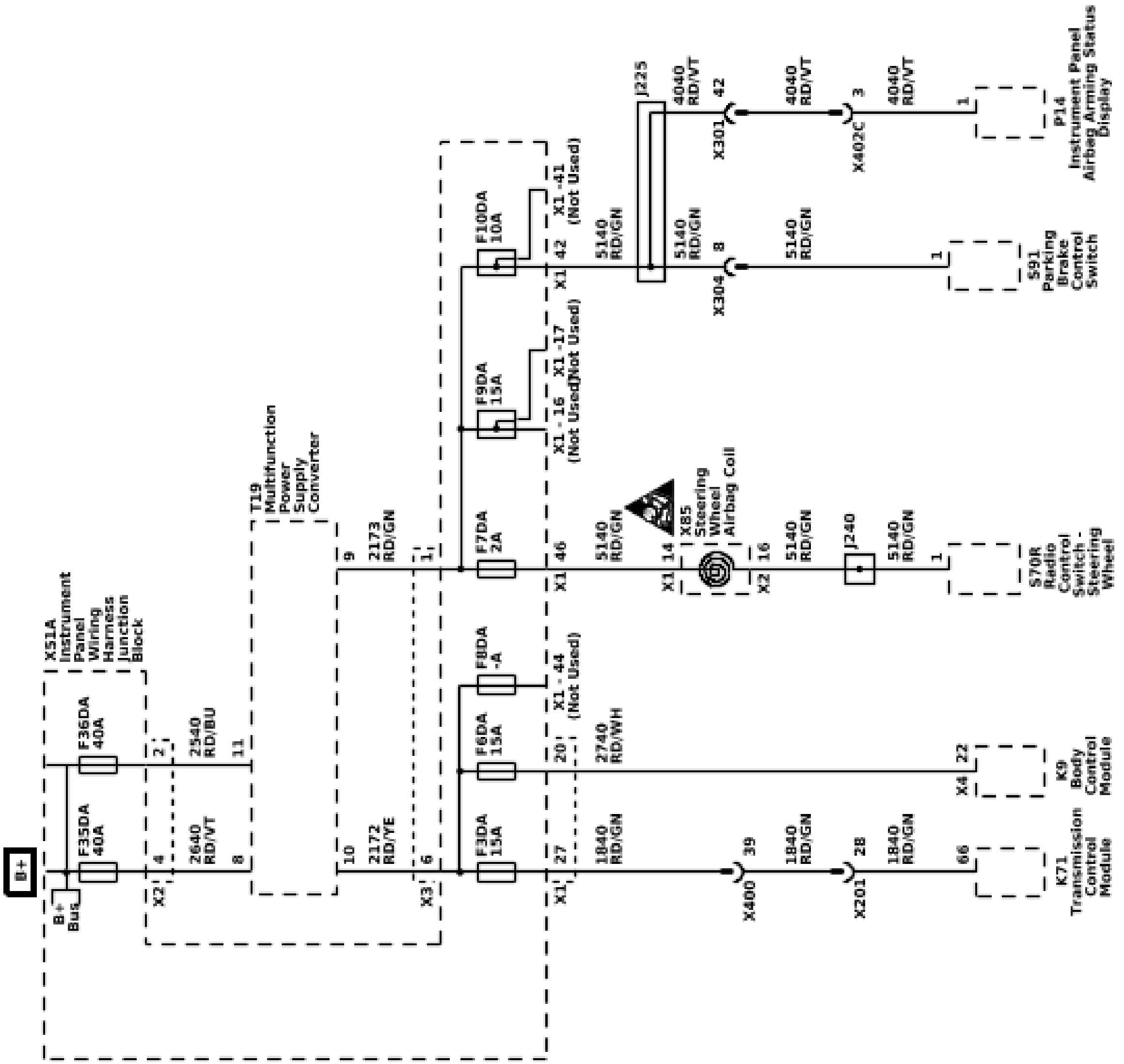
Power Distribution Schematics (F1DA, F2DA, F4DA, F5DA, F11DA, F13DA, F29DA, and F33DA Fuses)


X51A Instrument Panel Wiring Harness Junction Block
B+
B+ Bus
F1DA 40A
F11DA 10A
F2DA 20A
F4DA 20A
F33DA 25A
F29DA 25A
F13DA 10A
F5DA 10A
X1
49
14
15
23
22
3
4
39
40
48
A45
2040 RD/WH
7240 RD/WH
3240 RD/BU
1140 RD/BN
1240 RD/BU
1540 RD/GN
1340 RD/WH
6440 RD/WH
4440 RD/GN
3340 RD/VT
X301 41
X300 1
2
14
13
X400 4
X402A 7
X300 3
X302A 9
J217
J308
J340
1
X1 1
X1 1
X4 22
24
X2 22
X3 10
X1 1
1
X1 56
X1 3
1
X4 17
M8 Blower Motor
X92G USB 2 Port Receptacle
K73 Telematic Control Module
K219 Lighting Control Module
K56 Serial Data Gateway Module
K85P Restraints Occupant Classification System Module - Passenger
K36 Restraints Control Module
K40D Driver Seat Adjuster Memory Module
S64D Front Seat Adjuster Switch - Driver
X50A Engine Wiring Harness Junction Block

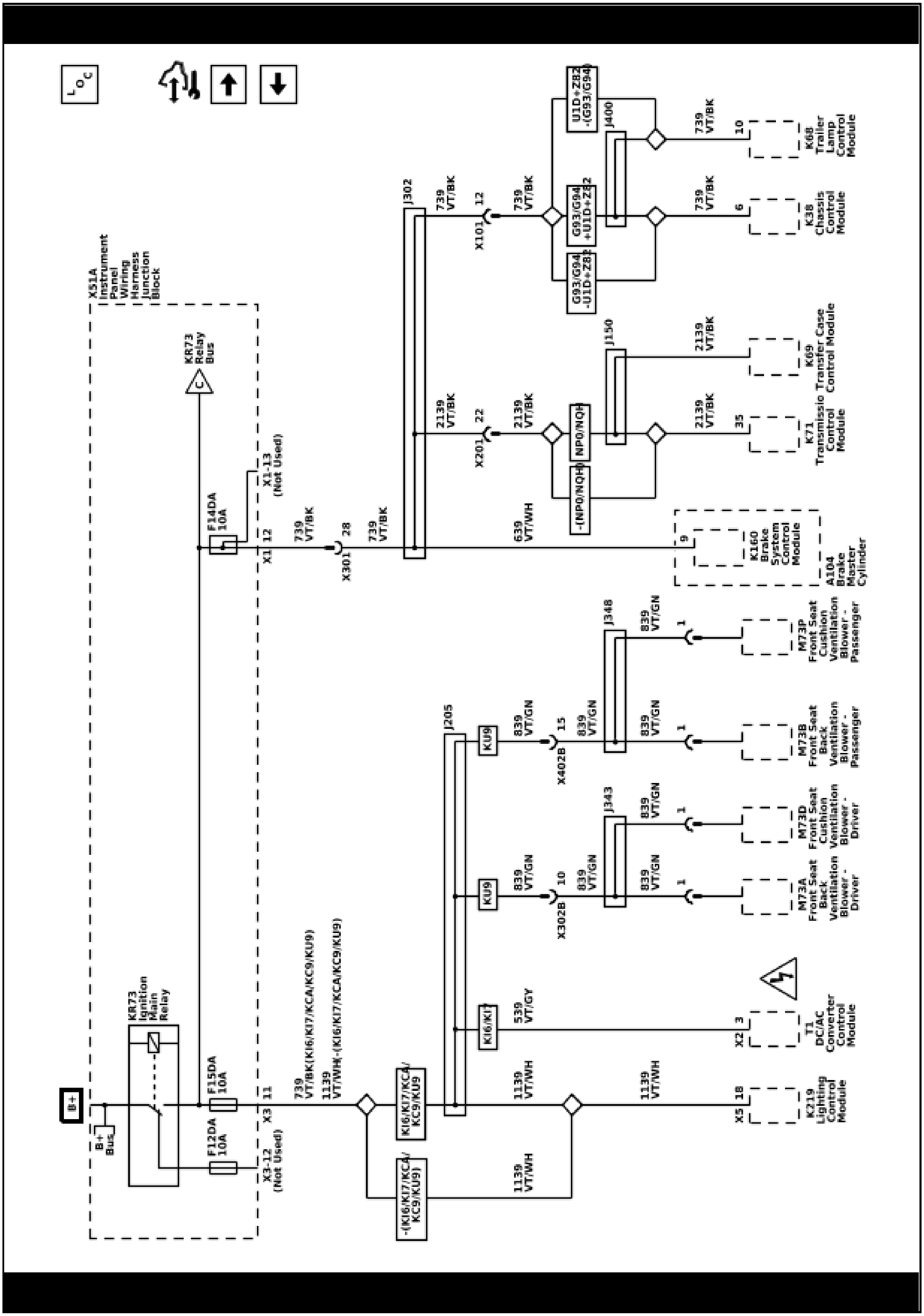
6331831

Power Distribution Schematics (F3DA, F6DA, F7DA, F8DA, F9DA, F10DA, F35DA and F36DA Fuses)

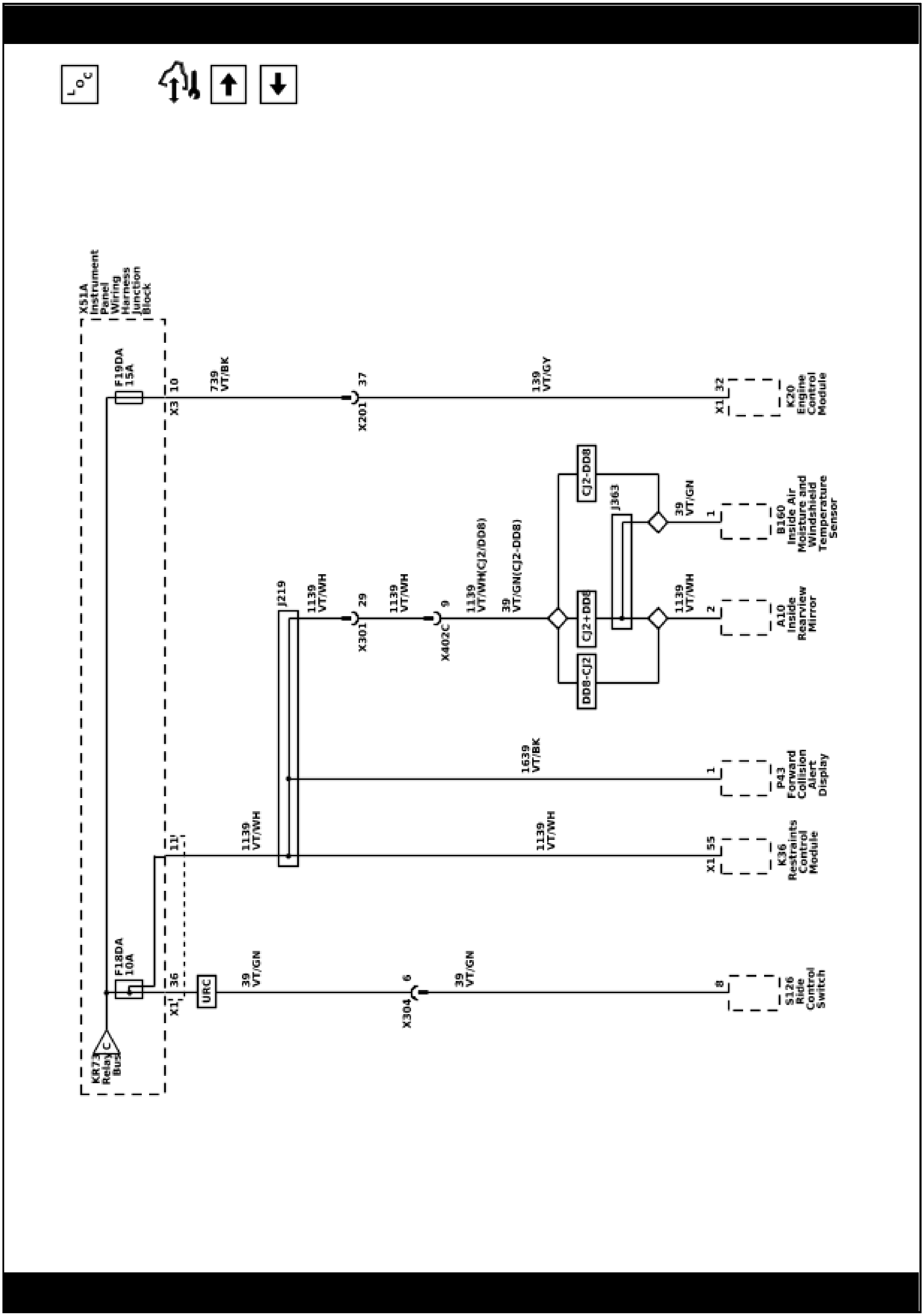
6331832


B+
B+ Bus
X51A Instrument Panel Wiring Harness Junction Block
F35DA 40A
F36DA 40A
X2 4
X2 2
2640 RD/VT
2540 RD/BU
8
11
T19 Multifunction Power Supply Converter
10
9
2172 RD/YE
2173 RD/GN
X3 6
X3 1
F3DA 15A
F6DA 15A
F8DA -A
F7DA 2A
F9DA 15A
F10DA 10A
X1 27
X1 20
X1 - 44 (Not Used)
X1 46
X1 - 16 (Not Used)
X1 -17 (Not Used)
X1 42
X1 -41 (Not Used)
1840 RD/GN
2740 RD/WH
5140 RD/GN
X400 39
1840 RD/GN
X201 28
1840 RD/GN
66
K71 Transmission Control Module
X4 22
K9 Body Control Module
X85 Steering Wheel Airbag Coil
X1 14
X2 16
5140 RD/GN
J240
5140 RD/GN
1
S70R Radio Control Switch - Steering Wheel
J225
5140 RD/GN
X304 8
5140 RD/GN
1
S91 Parking Brake Control Switch
4040 RD/VT
X301 42
4040 RD/VT
X402C 3
4040 RD/VT
1
P14 Instrument Panel Airbag Arming Status Display

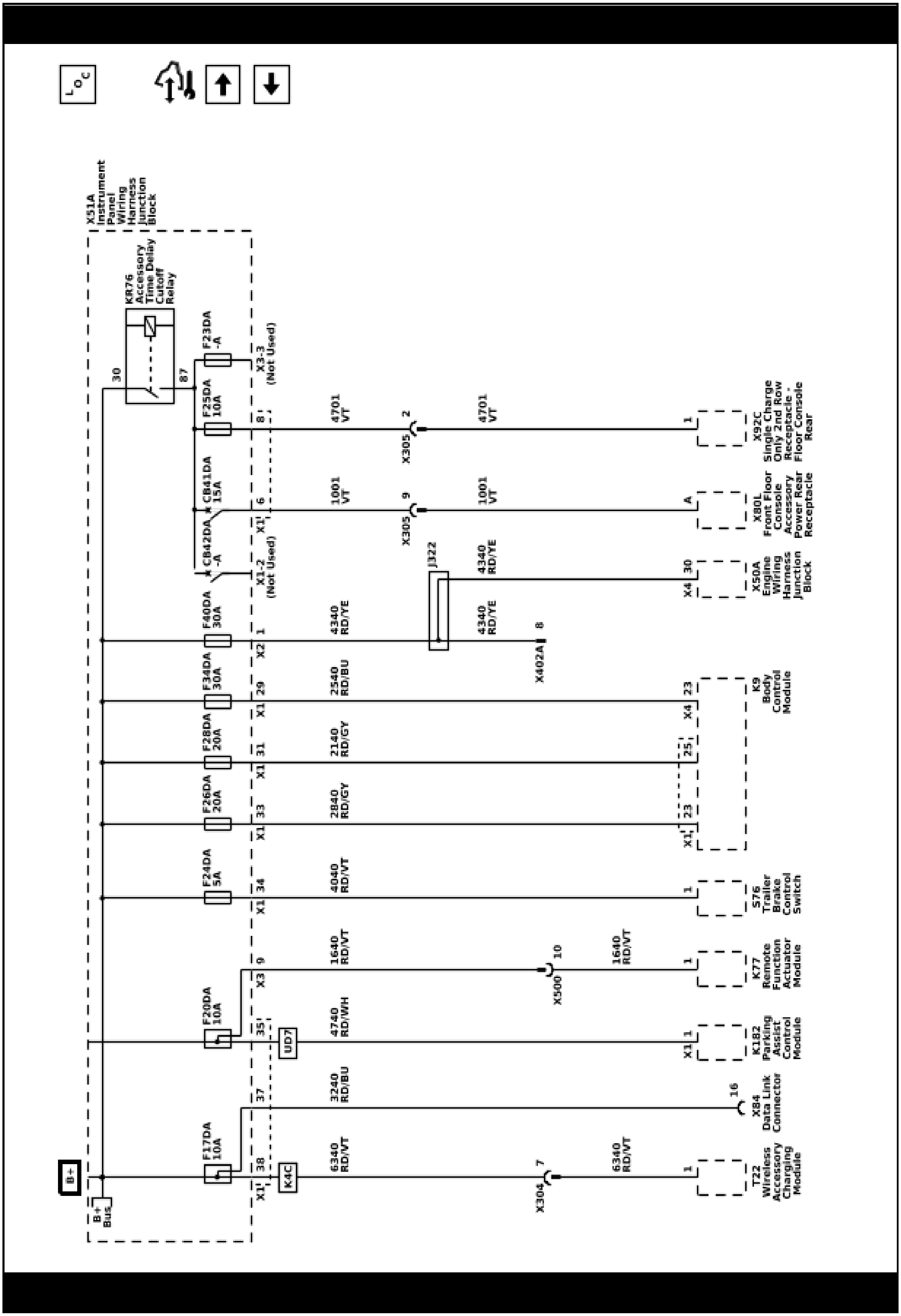
Power Distribution Schematics (F12DA, F14DA, and F15DA Fuses)


6331833
B+
B+ Bus
KR73 Ignition Main Relay
F12DA 10A
X3-12 (Not Used)
F15DA 10A
X3 11
KR73 Relay Bus
F14DA 10A
X1 12
X1-13 (Not Used)
X51A Instrument Panel Wiring Harness Junction Block
739 VT/BK(KI6/KI7/KCA/KC9/KU9)
1139 VT/WH-(KI6/KI7/KCA/KC9/KU9)
KI6/KI7/KCA/KC9/KU9
-(KI6/KI7/KCA/KC9/KU9)
1139 VT/WH
X5 18
K219 Lighting Control Module
KI6/KI7
539 VT/GY
X2 3
T1 DC/AC Converter Control Module
J205
KU9
839 VT/GN
X302B 10
J343
1
M73A Front Seat Back Ventilation Blower - Driver
M73D Front Seat Cushion Ventilation Blower - Driver
X402B 15
J348
M73B Front Seat Back Ventilation Blower - Passenger
M73P Front Seat Cushion Ventilation Blower - Passenger
739 VT/BK
X301 28
639 VT/WH
9
K160 Brake System Control Module
A104 Brake Master Cylinder
J302
2139 VT/BK
X201 22
NP0/NQH
-(NP0/NQH)
J150
35
K71 Transmission Control Module
K09 Transfer Case Control Module
X101 12
G93/G94 +U1D+Z82
G93/G94 -U1D+Z82
U1D+Z82 -(G93/G94)
J400
6
K38 Chassis Control Module
10
K68 Trailer Lamp Control Module

Power Distribution Schematics (F18DA and F19DA Fuses)

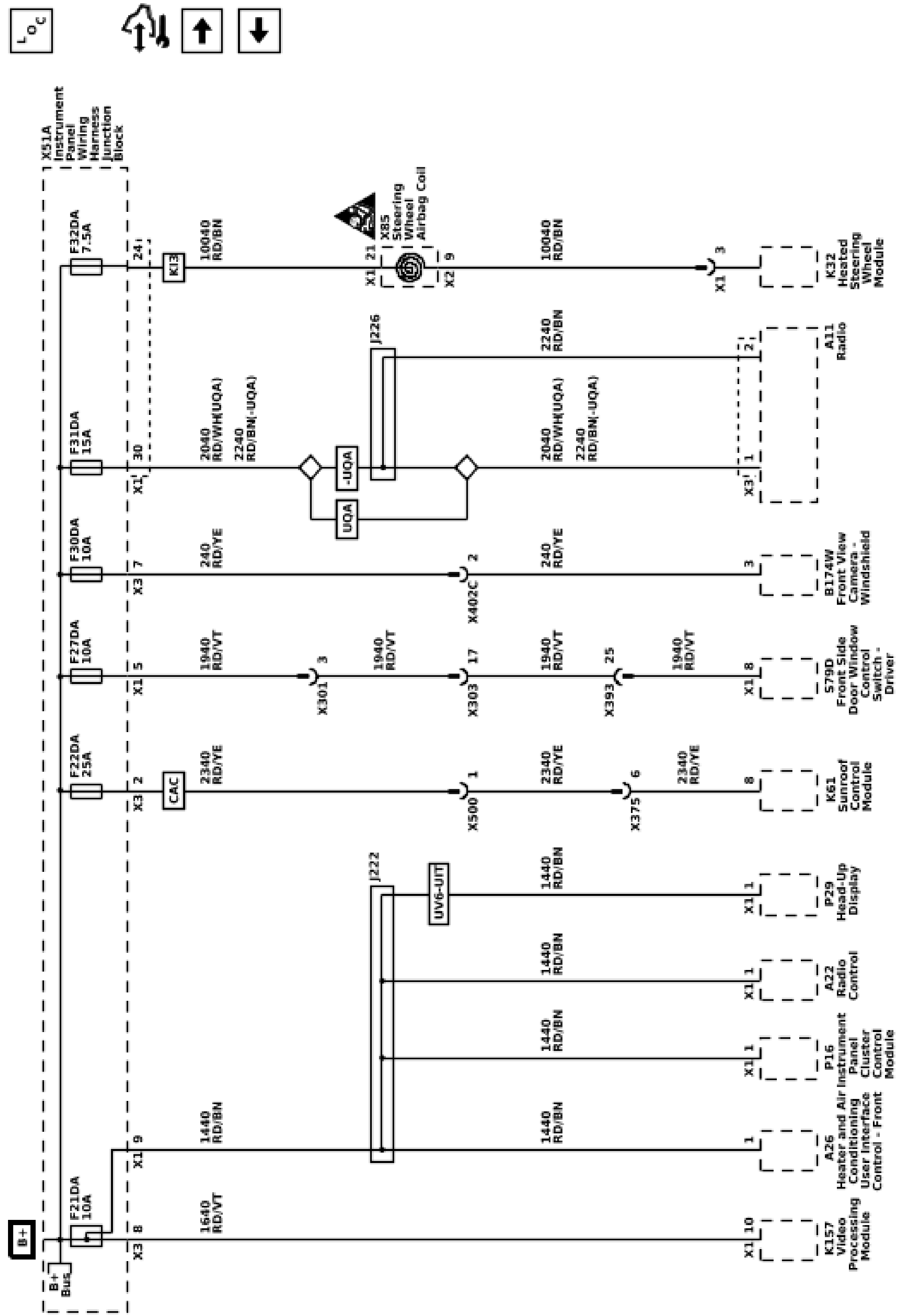

6331834
X51A Instrument Panel Wiring Harness Junction Block
KR73 Relay Bus
C
F19DA 15A
X3 10
739 VT/BK
X201 37
139 VT/GY
X1 32
K20 Engine Control Module
F18DA 10A
X1 36
11
URC
39 VT/GN
X304 6
39 VT/GN
8
S126 Ride Control Switch
1139 VT/WH
1139 VT/WH
X1 55
K36 Restraints Control Module
J219
1639 VT/BK
1
P43 Forward Collision Alert Display
1139 VT/WH
X301 29
1139 VT/WH
X402C 9
1139 VT/WH(CJ2/DD8)
39 VT/GN(CJ2-DD8)
CJ2-DD8
CJ2+DD8
DD8-CJ2
J363
39 VT/GN
1
B160 Inside Air Moisture and Windshield Temperature Sensor
1139 VT/WH
2
A10 Inside Rearview Mirror

Power Distribution Schematics (F17DA, F20DA, F23DA, F24DA, F25DA, F26DA, F28DA, F34DA, F40D, CB41DA, and CB42DA Fuses)

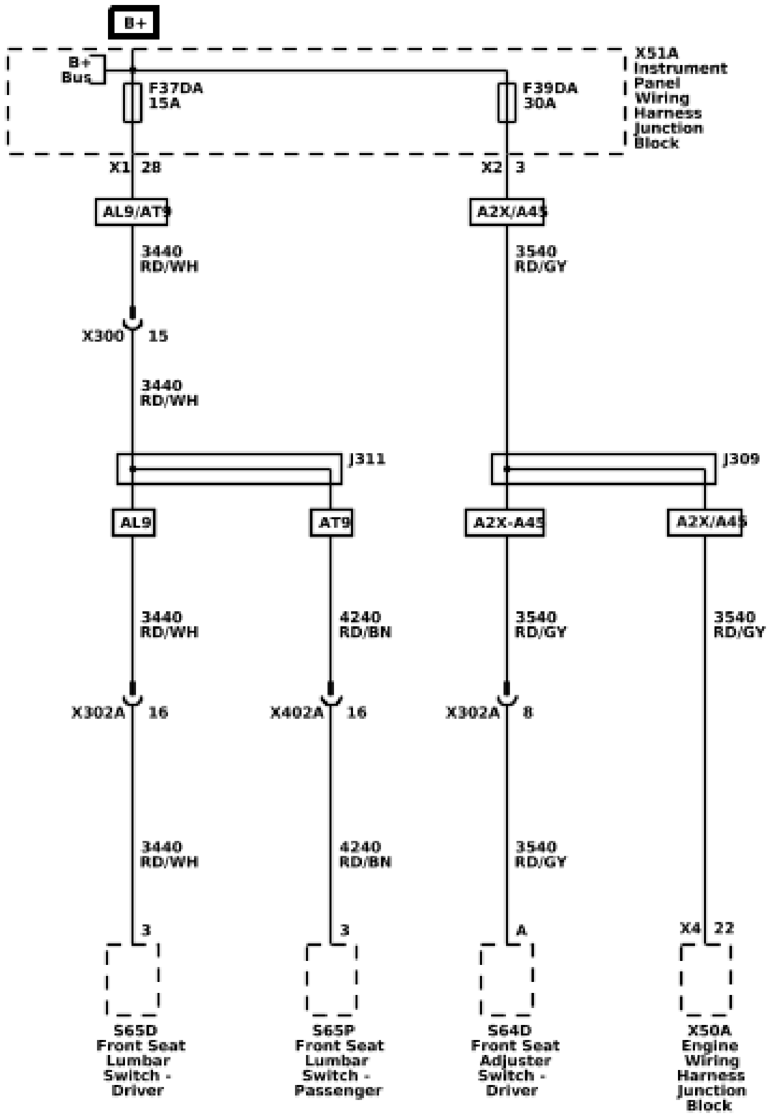


X51A Instrument Panel Wiring Harness Junction Block
KR76 Accessory Time Delay Cutoff Relay
30
87
B+
B+ Bus
F23DA -A
X3-3 (Not Used)
F25DA 10A
8
4701 VT
X305
2
X92C Single Charge Only 2nd Row Receptacle - Floor Console Rear
CB41DA 15A
X1
6
1001 VT
9
A
X80L Front Floor Console Accessory Power Rear Receptacle
CB42DA -A
X1-2 (Not Used)
J322
4340 RD/YE
30
X4
X50A Engine Wiring Harness Junction Block
F40DA 30A
X2
1
X402A
8
F34DA 30A
29
2540 RD/BU
23
K9 Body Control Module
F28DA 20A
31
2140 RD/GY
25
F26DA 20A
33
2840 RD/GY
F24DA 5A
34
4040 RD/VT
S76 Trailer Brake Control Switch
F20DA 10A
X3
9
1640 RD/VT
X500
10
K77 Remote Function Actuator Module
35
UD7
4740 RD/WH
K182 Parking Assist Control Module
37
3240 RD/BU
16
X84 Data Link Connector
F17DA 10A
38
K4C
6340 RD/VT
X304
7
T22 Wireless Accessory Charging Module
6331835

Power Distribution Schematics (F21DA, F22DA, F27DA, F30DA, F31DA, and F32DA Fuses)

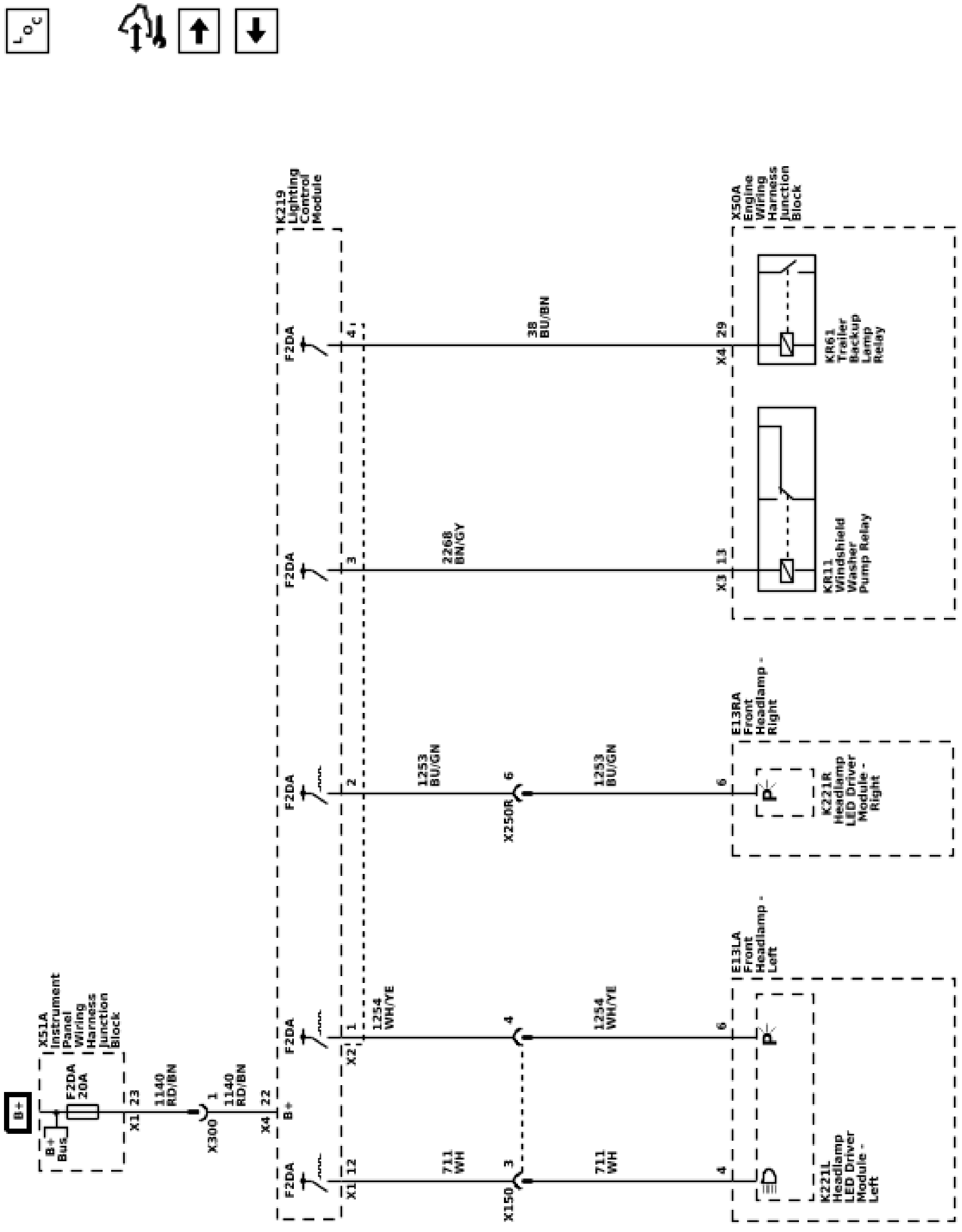

B+
B+ Bus
X51A Instrument Panel Wiring Harness Junction Block
F21DA 10A
F22DA 25A
F27DA 10A
F30DA 10A
F31DA 15A
F32DA 7.5A
X3 8
X1 9
X3 2
X1 5
X3 7
X1 30
24
K13
CAC
1640 RD/VT
1440 RD/BN
2340 RD/YE
1940 RD/VT
240 RD/YE
2040 RD/WH(UQA)
2240 RD/BN(-UQA)
10040 RD/BN
2240 RD/BN
J222
J226
UV6-U/T
UQA
-UQA
X301 3
X303 17
X393 25
X402C 2
X500 1
X375 6
X1 21
X2 9
X85 Steering Wheel Airbag Coil
X1 3
X1 10
1
X1 1
8
X1 8
3
X3 1
2
K157 Video Processing Module
A26 Heater and Air Conditioning User Interface Control - Front
P16 Instrument Panel Cluster Control Module
A22 Radio Control
P29 Head-Up Display
K61 Sunroof Control Module
S79D Front Side Door Window Control Switch - Driver
B174W Front View Camera - Windshield
A11 Radio
K32 Heated Steering Wheel Module

Power Distribution Schematics (F37DA and F39DA Fuses)


B+
B+ Bus
F37DA 15A
F39DA 30A
X51A Instrument Panel Wiring Harness Junction Block
X1 28
X2 3
AL9/AT9
A2X/A45
3440 RD/WH
3540 RD/GY
X300 15
3440 RD/WH
J311
J309
AL9
AT9
A2X-A45
A2X/A45
3440 RD/WH
4240 RD/BN
3540 RD/GY
3540 RD/GY
X302A 16
X402A 16
X302A 8
3440 RD/WH
4240 RD/BN
3540 RD/GY
3
3
A
X4 22
S65D Front Seat Lumbar Switch - Driver
S65P Front Seat Lumbar Switch - Passenger
S64D Front Seat Adjuster Switch - Driver
X50A Engine Wiring Harness Junction Block

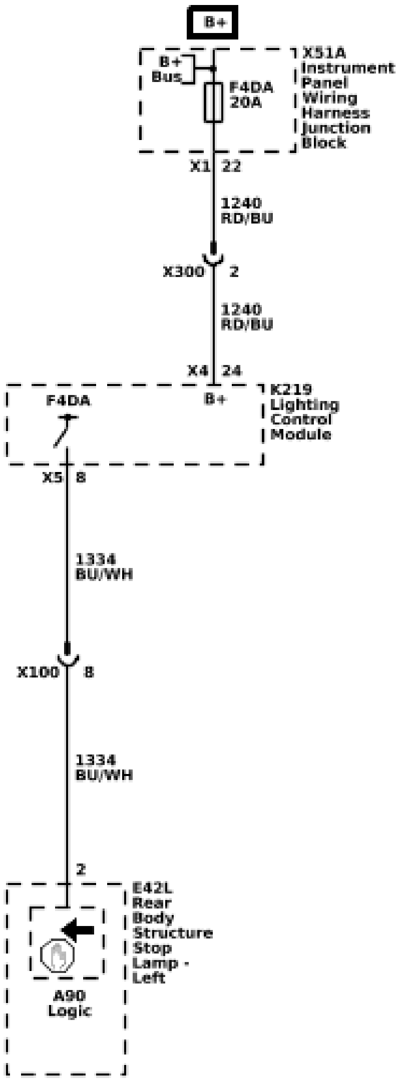
6331837

Power Distribution Schematics (F2DA Fuse and Lighting Control Module Fused Outputs)


B+
B+ Bus
F2DA 20A
X51A Instrument Panel Wiring Harness Junction Block
X1 23
1140 RD/BN
X300 1
1140 RD/BN
X4 22
B+
K219 Lighting Control Module
F2DA
X1 12
711 WH
X150 3
711 WH
4
K221L Headlamp LED Driver Module - Left
E13LA Front Headlamp - Left
F2DA
X2 1
1254 WH/YE
4
1254 WH/YE
6
F2DA
2
1253 BU/GN
X250R 6
1253 BU/GN
6
K221R Headlamp LED Driver Module - Right
E13RA Front Headlamp - Right
F2DA
3
2268 BN/GY
X3 13
KR11 Windshield Washer Pump Relay
F2DA
4
38 BU/BN
X4 29
KR61 Trailer Backup Lamp Relay
X50A Engine Wiring Harness Junction Block

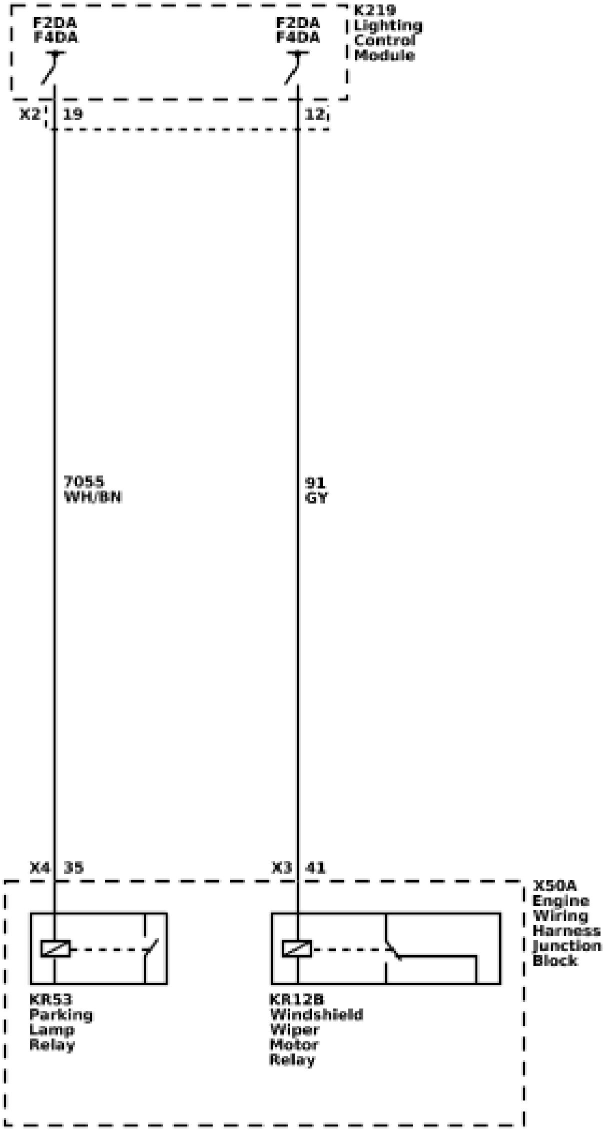
6370732

Power Distribution Schematics (F4DA Fuse and Lighting Control Module Fused Outputs)


B+
B+
Bus
F4DA
20A
X51A
Instrument
Panel
Wiring
Harness
Junction
Block
X1 22
1240
RD/BU
X300 2
1240
RD/BU
X4 24
B+
F4DA
K219
Lighting
Control
Module
X5 8
1334
BU/WH
X100 8
1334
BU/WH
2
E42L
Rear
Body
Structure
Stop
Lamp -
Left
A90
Logic

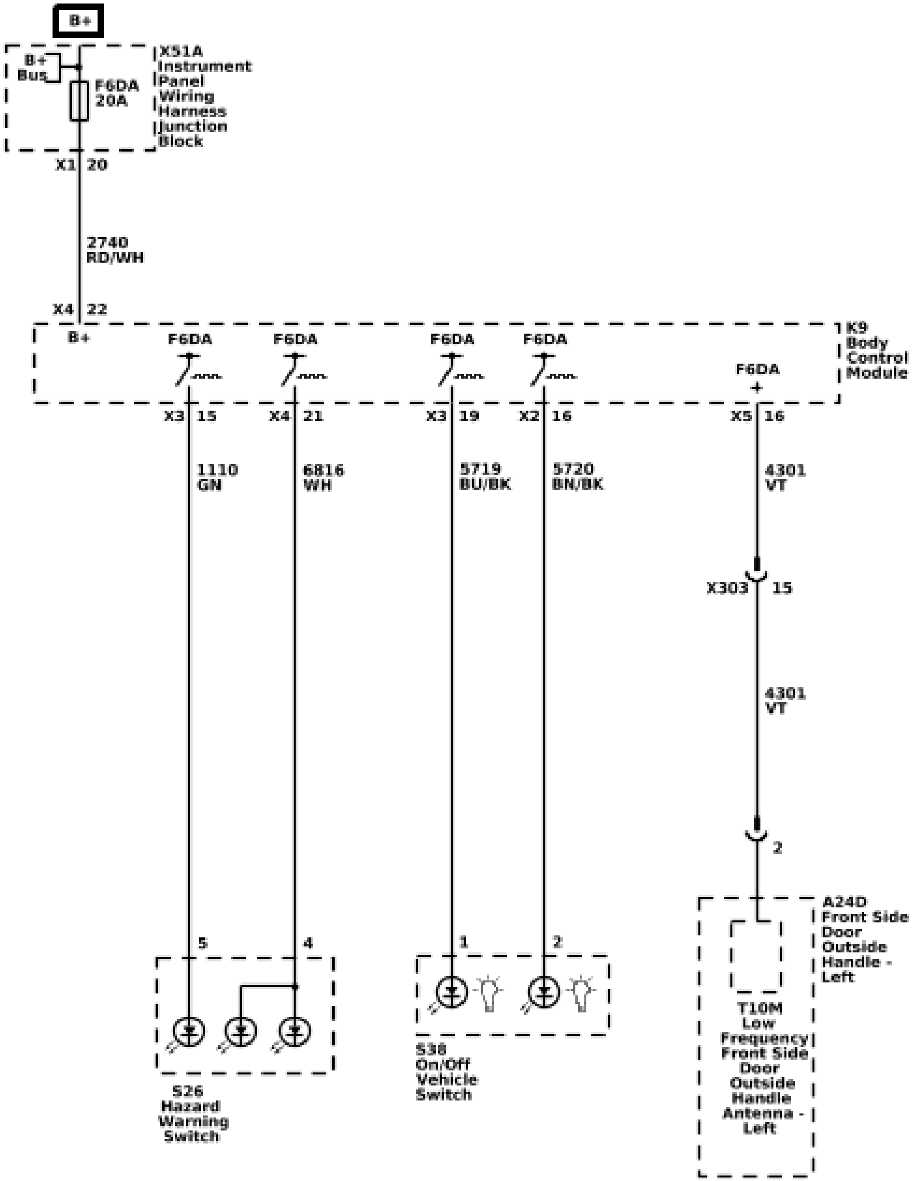
6370733

Power Distribution Schematics (F2DA and F4DA Fuses and Lighting Control Module Redundant Fused Outputs)


K219
Lighting
Control
Module
F2DA
F4DA
F2DA
F4DA
X2
19
12
7055
WH/BN
91
GY
X4
35
X3
41
X50A
Engine
Wiring
Harness
Junction
Block
KR53
Parking
Lamp
Relay
KR12B
Windshield
Wiper
Motor
Relay

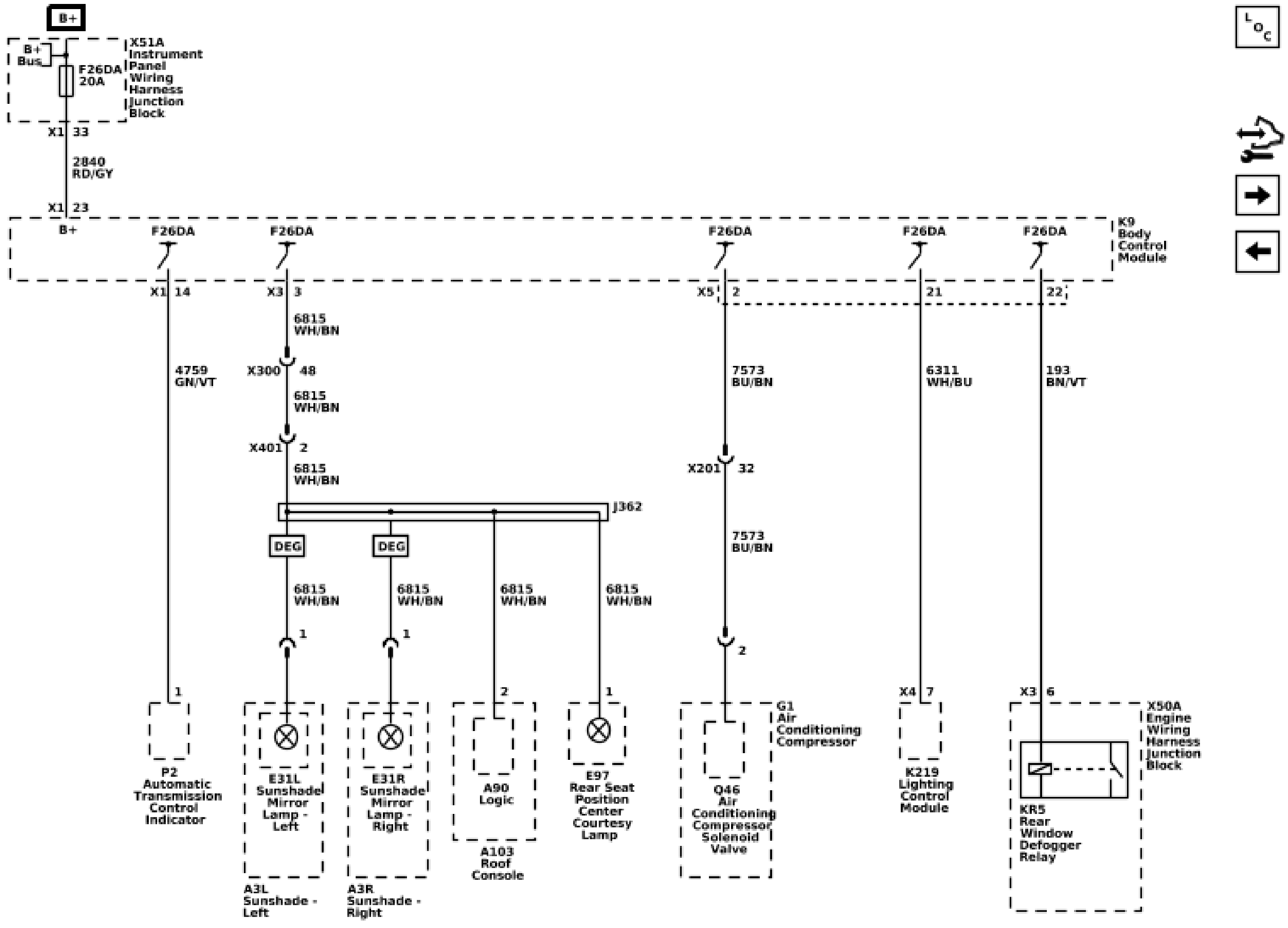
6370734

Power Distribution Schematics (F6DA Fuse and Body Control Module Fused Outputs)


B+
B+ Bus
F6DA 20A
X51A Instrument Panel Wiring Harness Junction Block
X1 20
2740 RD/WH
X4 22
B+
F6DA
F6DA
F6DA
F6DA
F6DA +
K9 Body Control Module
X3 15
X4 21
X3 19
X2 16
X5 16
1110 GN
6816 WH
5719 BU/BK
5720 BN/BK
4301 VT
X303 15
4301 VT
2
5
4
1
2
S26 Hazard Warning Switch
S38 On/Off Vehicle Switch
A24D Front Side Door Outside Handle - Left
T10M Low Frequency Front Side Door Outside Handle Antenna - Left

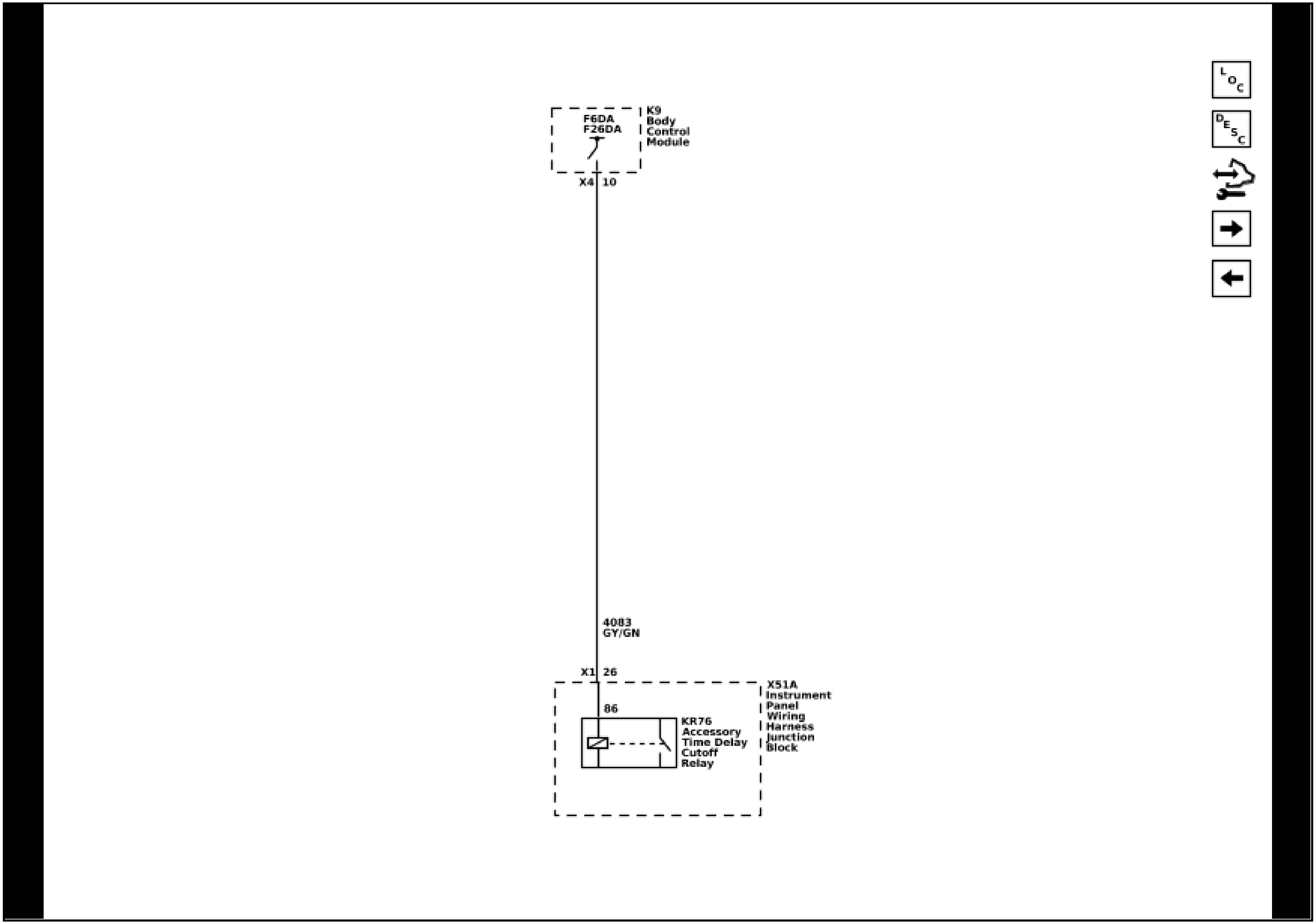
6370735

Power Distribution Schematics (F26DA Fuse and Body Control Module Fused Outputs)


B+
B+ Bus
F26DA 20A
X51A Instrument Panel Wiring Harness Junction Block
X1 33
2840 RD/GY
X1 23
B+
F26DA
F26DA
F26DA
F26DA
F26DA
K9 Body Control Module
X1 14
X3 3
X5 2
21
22
4759 GN/VT
6815 WH/BN
X300 48
6815 WH/BN
X401 2
6815 WH/BN
J362
DEG
DEG
6815 WH/BN
6815 WH/BN
6815 WH/BN
6815 WH/BN
1
1
7573 BU/BN
X201 32
7573 BU/BN
2
6311 WH/BU
193 BN/VT
1
P2 Automatic Transmission Control Indicator
E31L Sunshade Mirror Lamp - Left
A3L Sunshade - Left
E31R Sunshade Mirror Lamp - Right
A3R Sunshade - Right
2
A90 Logic
A103 Roof Console
1
E97 Rear Seat Position Center Courtesy Lamp
G1 Air Conditioning Compressor
Q46 Air Conditioning Compressor Solenoid Valve
X4 7
K219 Lighting Control Module
X3 6
X50A Engine Wiring Harness Junction Block
KR5 Rear Window Defogger Relay

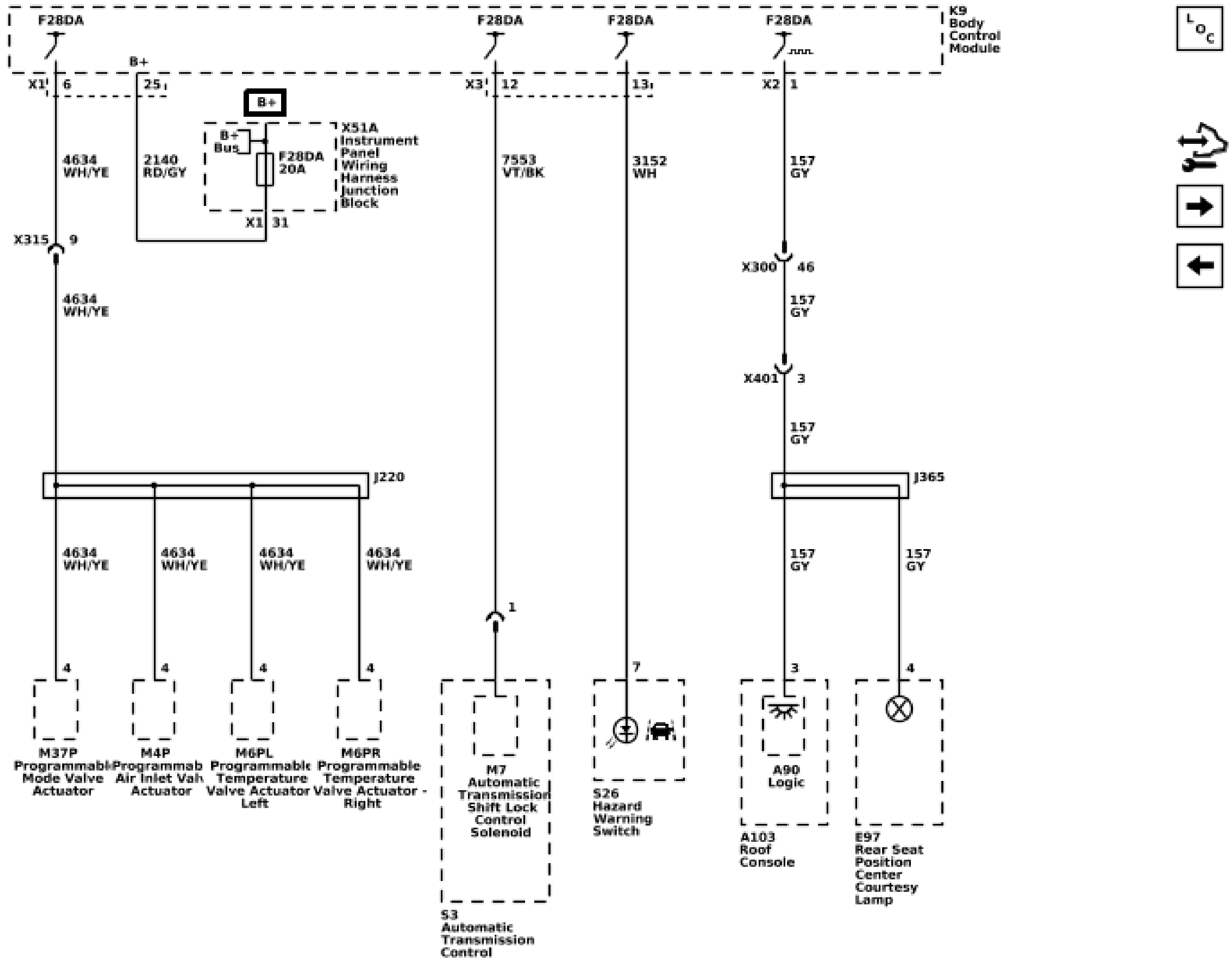
6370736

Power Distribution Schematics (F6DA and F26DA Fuses and Body Control Module Redundant Fused Outputs)

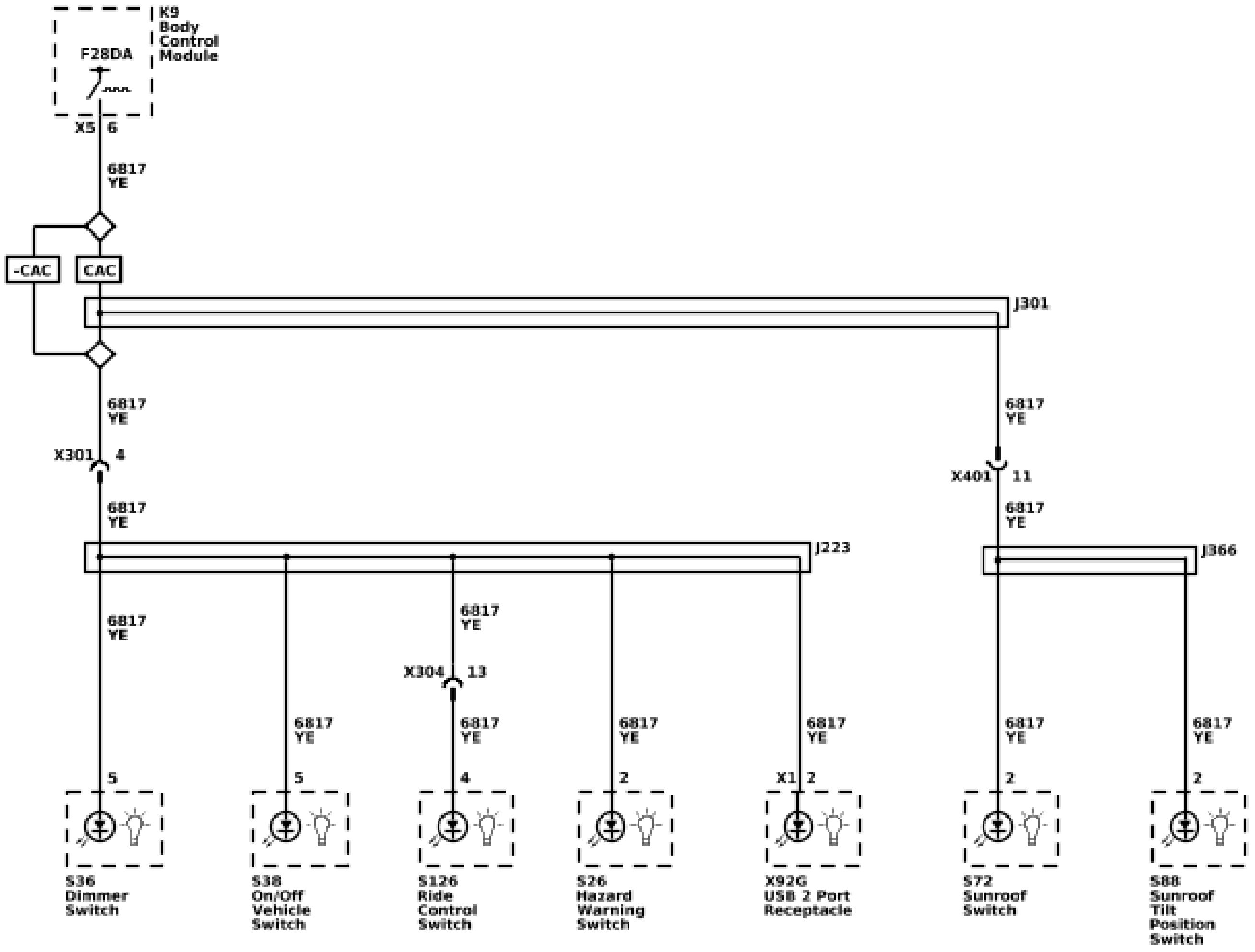

F6DA
F26DA
K9
Body
Control
Module
X4 10
4083
GY/GN
X1 26
86
KR76
Accessory
Time Delay
Cutoff
Relay
X51A
Instrument
Panel
Wiring
Harness
Junction
Block

6370737

Power Distribution Schematics (F28DA Fuse and Body Control Module Fused Outputs - 1 of 2)

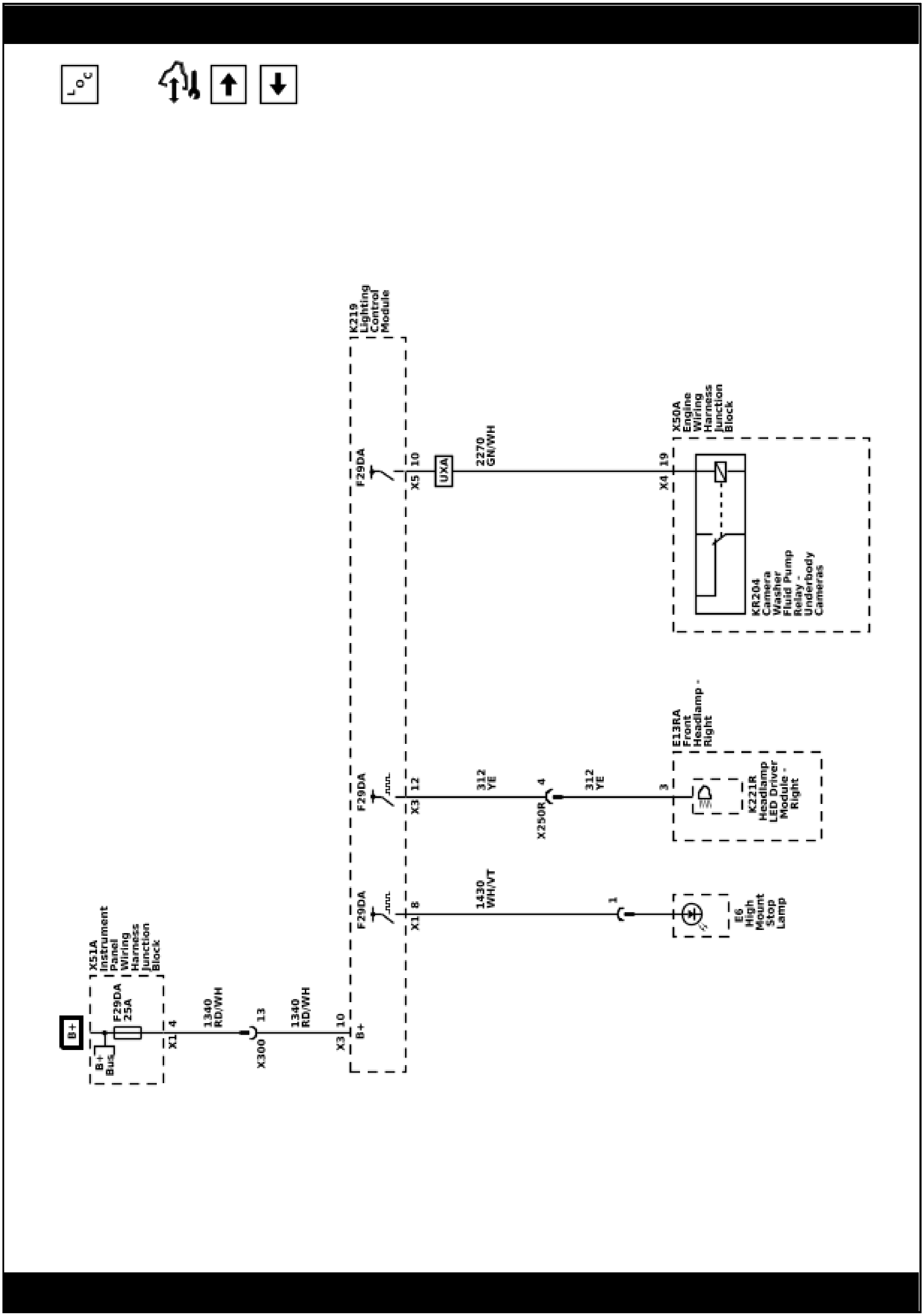

K9
Body
Control
Module
F28DA
F28DA
F28DA
F28DA
B+
X1 6
25
X3 12
13
X2 1
B+
B+ Bus
F28DA 20A
X51A Instrument Panel Wiring Harness Junction Block
X1 31
4634 WH/YE
2140 RD/GY
7553 VT/BK
3152 WH
157 GY
X315 9
X300 46
X401 3
J220
J365
1
4
4
4
4
7
3
4
M37P Programmable Mode Valve Actuator
M4P Programmable Air Inlet Valve Actuator
M6PL Programmable Temperature Valve Actuator - Left
M6PR Programmable Temperature Valve Actuator - Right
M7 Automatic Transmission Shift Lock Control Solenoid
S3 Automatic Transmission Control
S26 Hazard Warning Switch
A90 Logic
A103 Roof Console
E97 Rear Seat Position Center Courtesy Lamp
6370738

Power Distribution Schematics (F28DA Fuse and Body Control Module Fused Outputs - 2 of 2)


K9
Body
Control
Module
F28DA
X5 6
6817
YE
-CAC
CAC
J301
6817
YE
X301 4
6817
YE
J223
6817
YE
X401 11
6817
YE
J366
6817
YE
X304 13
6817
YE
5
5
4
2
X1 2
2
2
S36
Dimmer
Switch
S38
On/Off
Vehicle
Switch
S126
Ride
Control
Switch
S26
Hazard
Warning
Switch
X92G
USB 2 Port
Receptacle
S72
Sunroof
Switch
S88
Sunroof
Tilt
Position
Switch

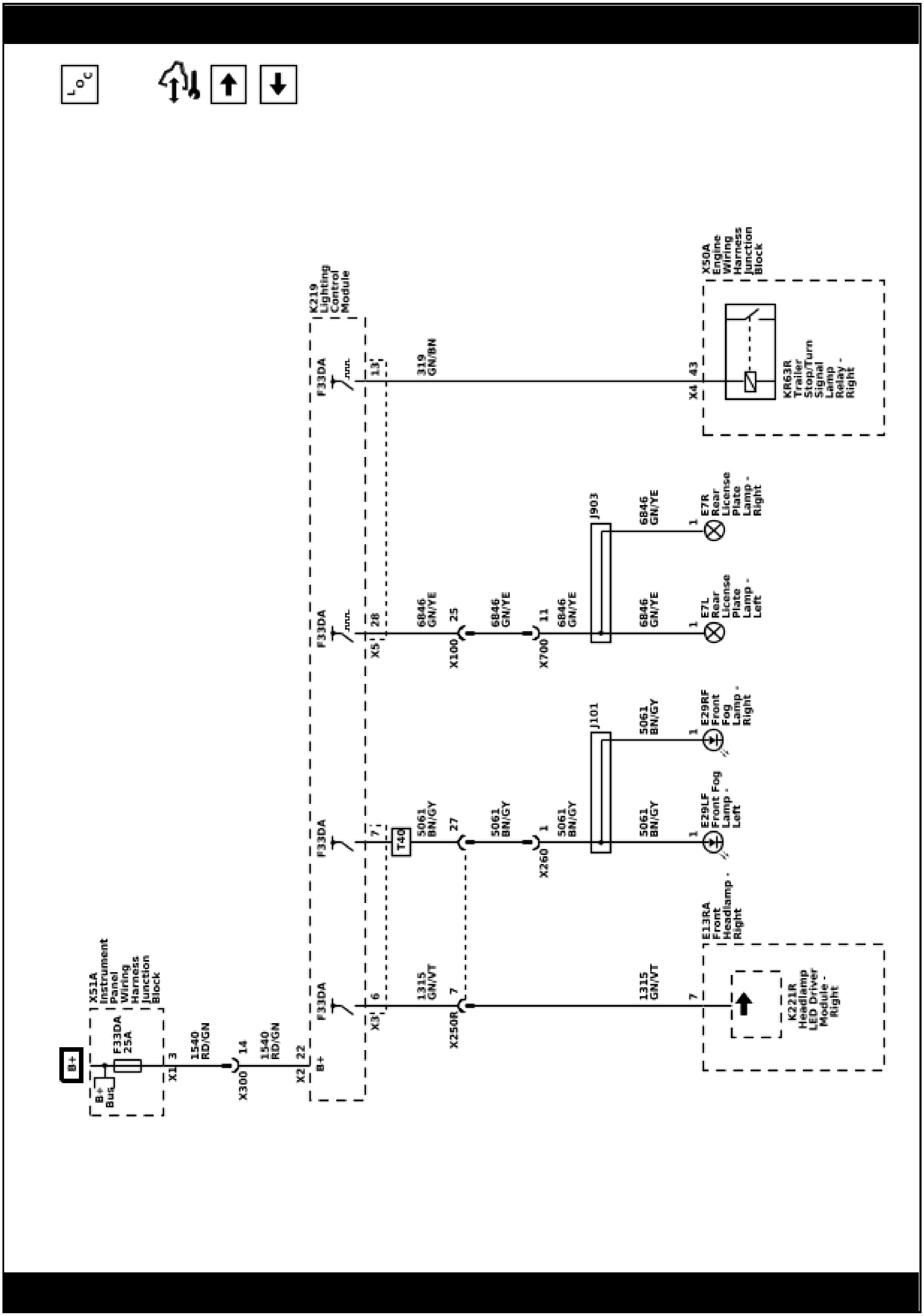
6370739

Power Distribution Schematics (F29DA Fuse and Lighting Control Module Fused Outputs)


B+
B+ Bus
X51A Instrument Panel Wiring Harness Junction Block
F29DA 25A
X1 4
1340 RD/WH
X300 13
1340 RD/WH
X3 10
B+
K219 Lighting Control Module
F29DA
X1 8
1430 WH/VT
1
E6 High Mount Stop Lamp
F29DA
X3 12
312 YE
X250R 4
312 YE
3
E13RA Front Headlamp - Right
K221R Headlamp LED Driver Module - Right
F29DA
X5 10
UXA
2270 GN/WH
X4 19
X50A Engine Wiring Harness Junction Block
KR204 Camera Washer Fluid Pump Relay - Underbody Cameras

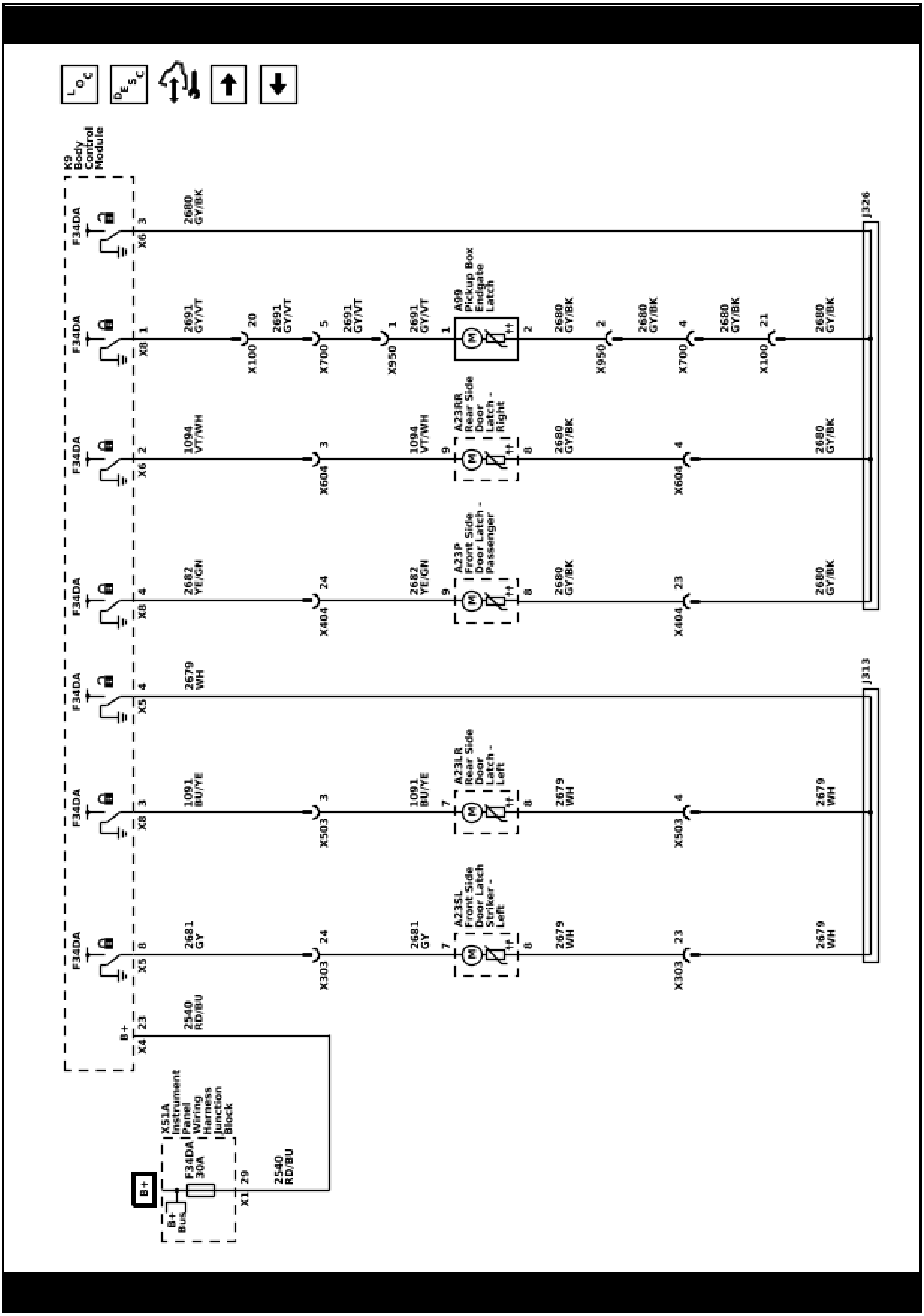
6370740

Power Distribution Schematics (F33DA Fuse and Lighting Control Module Fused Outputs)

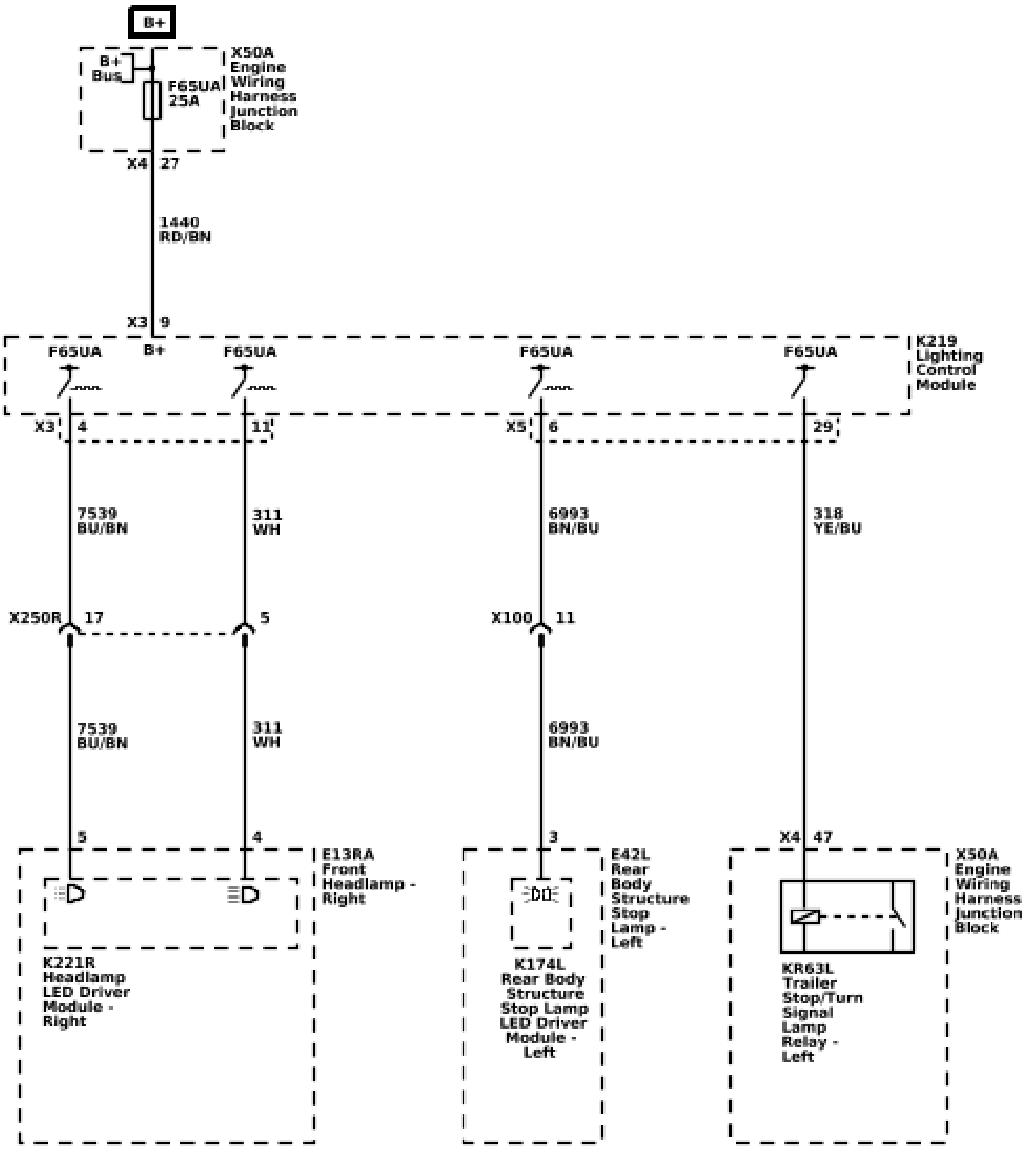

B+
B+ Bus
X51A Instrument Panel Wiring Harness Junction Block
F33DA 25A
X1 3
1540 RD/GN
X300 14
1540 RD/GN
X2 22
B+
K219 Lighting Control Module
F33DA
X3 6
1315 GN/VT
X250R 7
1315 GN/VT
7
E13RA Front Headlamp - Right
K221R Headlamp LED Driver Module - Right
F33DA
7
T40
5061 BN/GY
27
5061 BN/GY
X260 1
5061 BN/GY
J101
5061 BN/GY
1
E29LF Front Fog Lamp - Left
5061 BN/GY
1
E29RF Front Fog Lamp - Right
F33DA
X5 28
6846 GN/YE
X100 25
6846 GN/YE
X700 11
6846 GN/YE
J903
6846 GN/YE
1
E7L Rear License Plate Lamp - Left
6846 GN/YE
1
E7R Rear License Plate Lamp - Right
F33DA
13
319 GN/BN
X4 43
X50A Engine Wiring Harness Junction Block
KR63R Trailer Stop/Turn Signal Lamp Relay - Right

6370741

Power Distribution Schematics (F34DA Fuse and Body Control Module Fused Outputs)

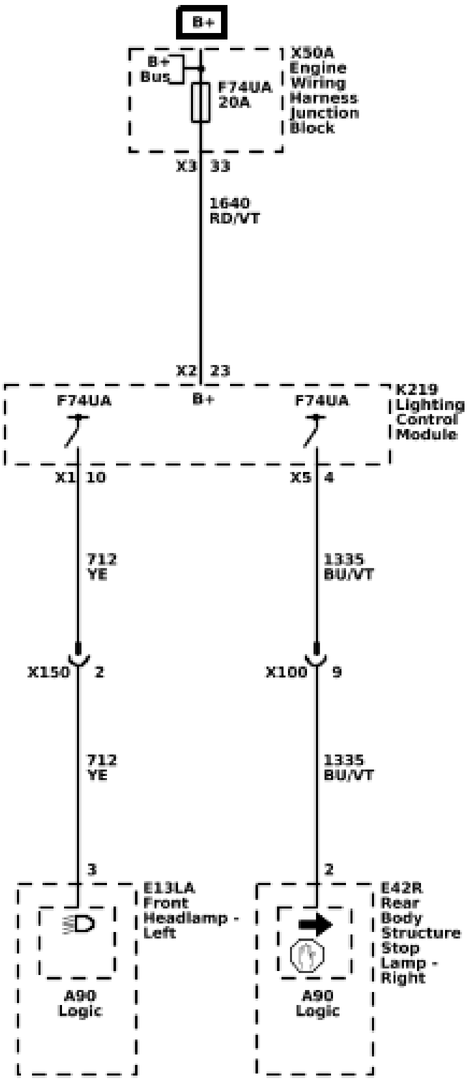

6370742
K9 Body Control Module
F34DA
X6 3
2680 GY/BK
X8 1
2691 GY/VT
X100 20
X700 5
X950 1
A99 Pickup Box Endgate Latch
X950 2
X700 4
X100 21
X6 2
1094 VT/WH
X604 3
A23RR Rear Side Door Latch - Right
X604 4
X8 4
2682 YE/GN
X404 24
A23P Front Side Door Latch - Passenger
X404 23
J326
X5 4
2679 WH
J313
X8 3
1091 BU/YE
X503 3
A23LR Rear Side Door Latch - Left
X503 4
X5 8
2681 GY
X303 24
A23SL Front Side Door Latch Striker - Left
X303 23
B+
X4 23
2540 RD/BU
X51A Instrument Panel Wiring Harness Junction Block
F34DA 30A
B+ Bus
X1 29
M
1
2
7
8
9

Power Distribution Schematics (F65UA Fuse and Lighting Control Module Fused Outputs)


B+
B+ Bus
F65UA 25A
X50A Engine Wiring Harness Junction Block
X4 27
1440 RD/BN
X3 9
B+
F65UA
F65UA
F65UA
F65UA
K219 Lighting Control Module
X3 4
11
X5 6
29
7539 BU/BN
311 WH
6993 BN/BU
318 YE/BU
X250R 17
5
X100 11
7539 BU/BN
311 WH
6993 BN/BU
5
4
3
X4 47
E13RA Front Headlamp - Right
K221R Headlamp LED Driver Module - Right
E42L Rear Body Structure Stop Lamp - Left
K174L Rear Body Structure Stop Lamp LED Driver Module - Left
X50A Engine Wiring Harness Junction Block
KR63L Trailer Stop/Turn Signal Lamp Relay - Left

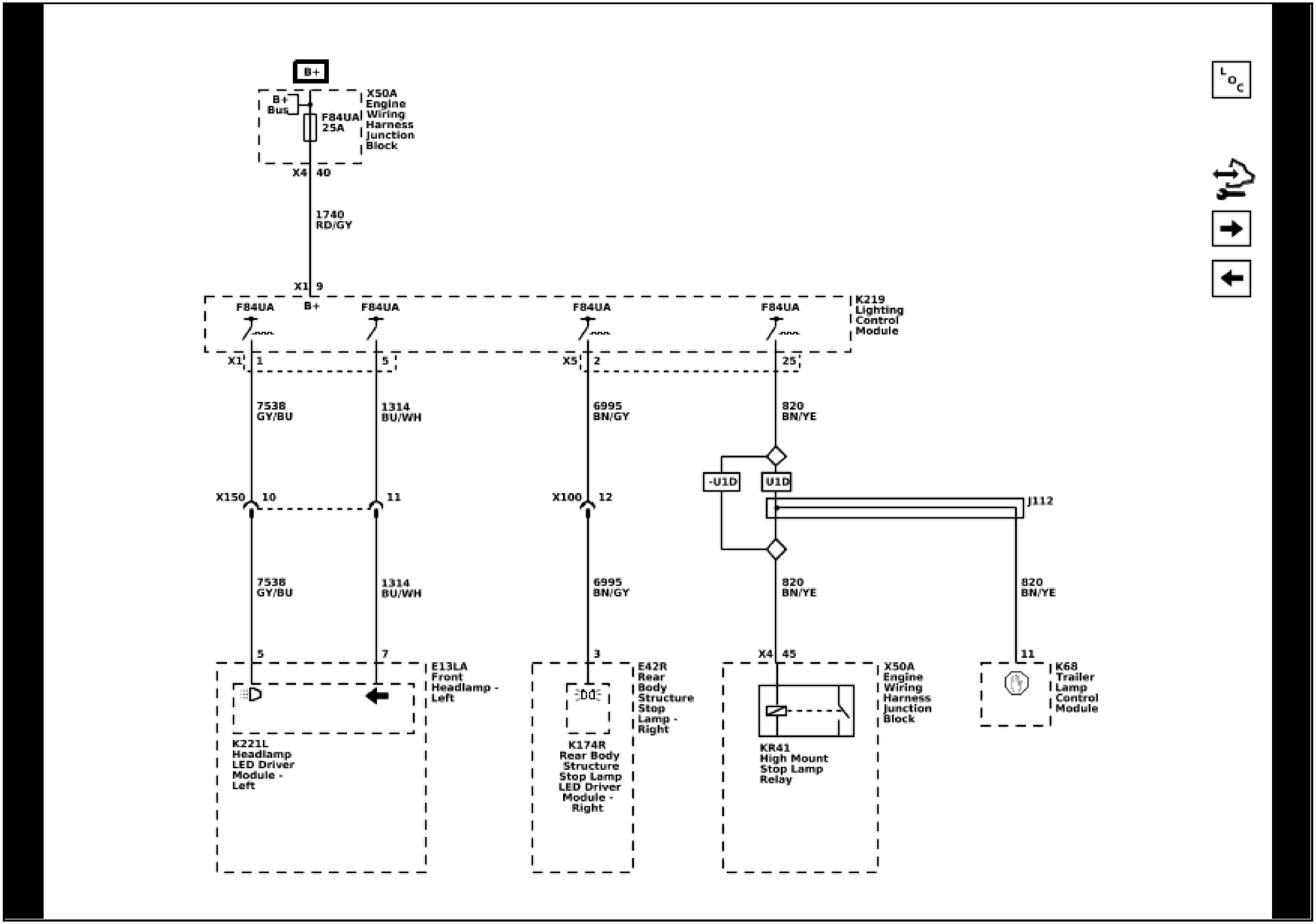
6370743

Power Distribution Schematics (F74UA Fuse and Lighting Control Module Fused Outputs)


B+
B+ Bus
F74UA 20A
X50A Engine Wiring Harness Junction Block
X3 33
1640 RD/VT
X2 23
B+
F74UA
F74UA
K219 Lighting Control Module
X1 10
X5 4
712 YE
1335 BU/VT
X150 2
X100 9
712 YE
1335 BU/VT
3
2
E13LA Front Headlamp - Left
E42R Rear Body Structure Stop Lamp - Right
A90 Logic
A90 Logic

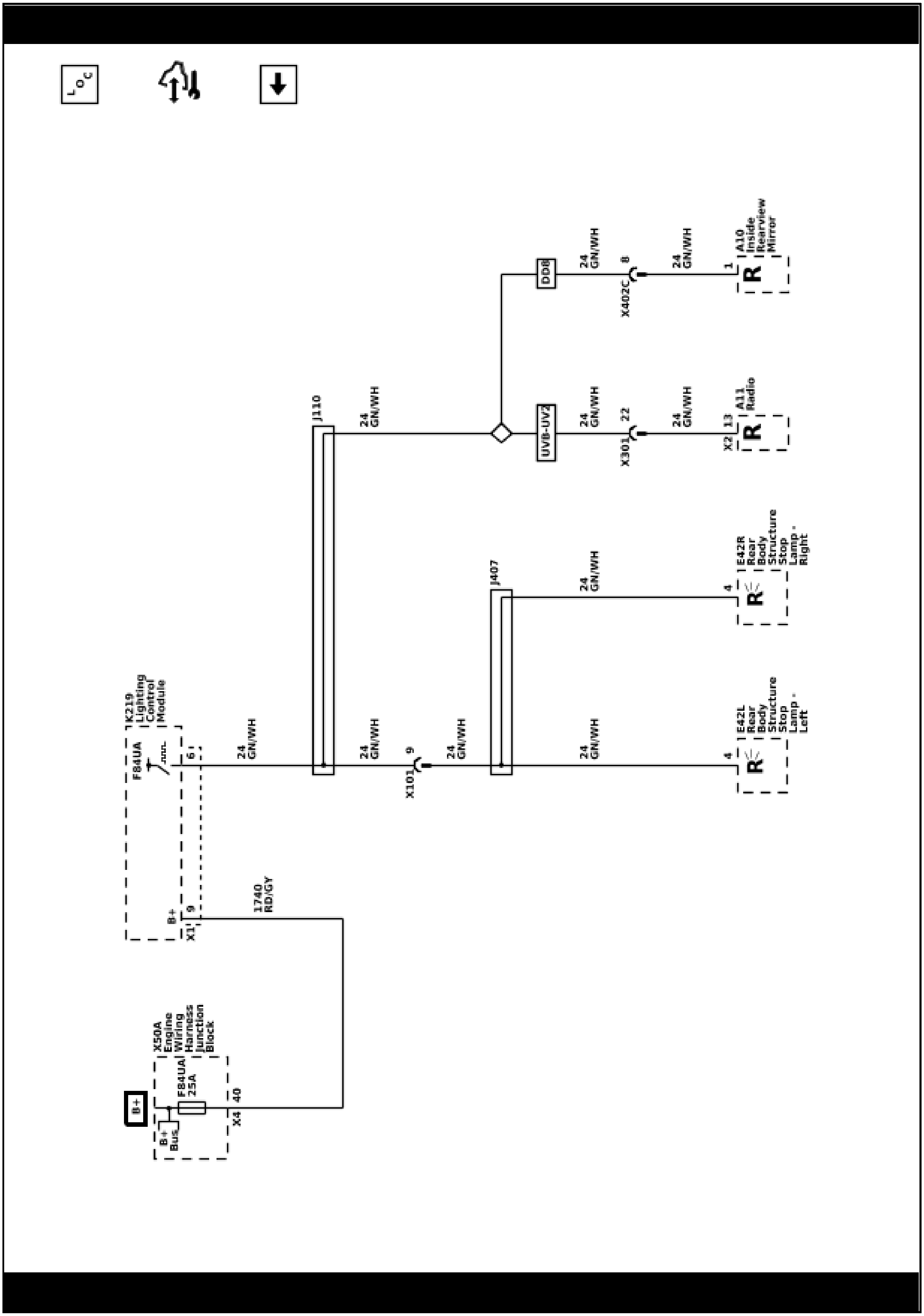
6370744

Power Distribution Schematics (F84UA Fuse and Lighting Control Module Fused Outputs - 1 of 2)


B+
B+ Bus
F84UA 25A
X50A Engine Wiring Harness Junction Block
X4 40
1740 RD/GY
X1 9
B+
F84UA
F84UA
F84UA
F84UA
K219 Lighting Control Module
X1 1
5
X5 2
25
7538 GY/BU
1314 BU/WH
6995 BN/GY
820 BN/YE
-U1D
U1D
J112
X150 10
11
X100 12
7538 GY/BU
1314 BU/WH
6995 BN/GY
820 BN/YE
820 BN/YE
5
7
3
X4 45
11
E13LA Front Headlamp - Left
K221L Headlamp LED Driver Module - Left
E42R Rear Body Structure Stop Lamp - Right
K174R Rear Body Structure Stop Lamp LED Driver Module - Right
X50A Engine Wiring Harness Junction Block
KR41 High Mount Stop Lamp Relay
K68 Trailer Lamp Control Module
L O C

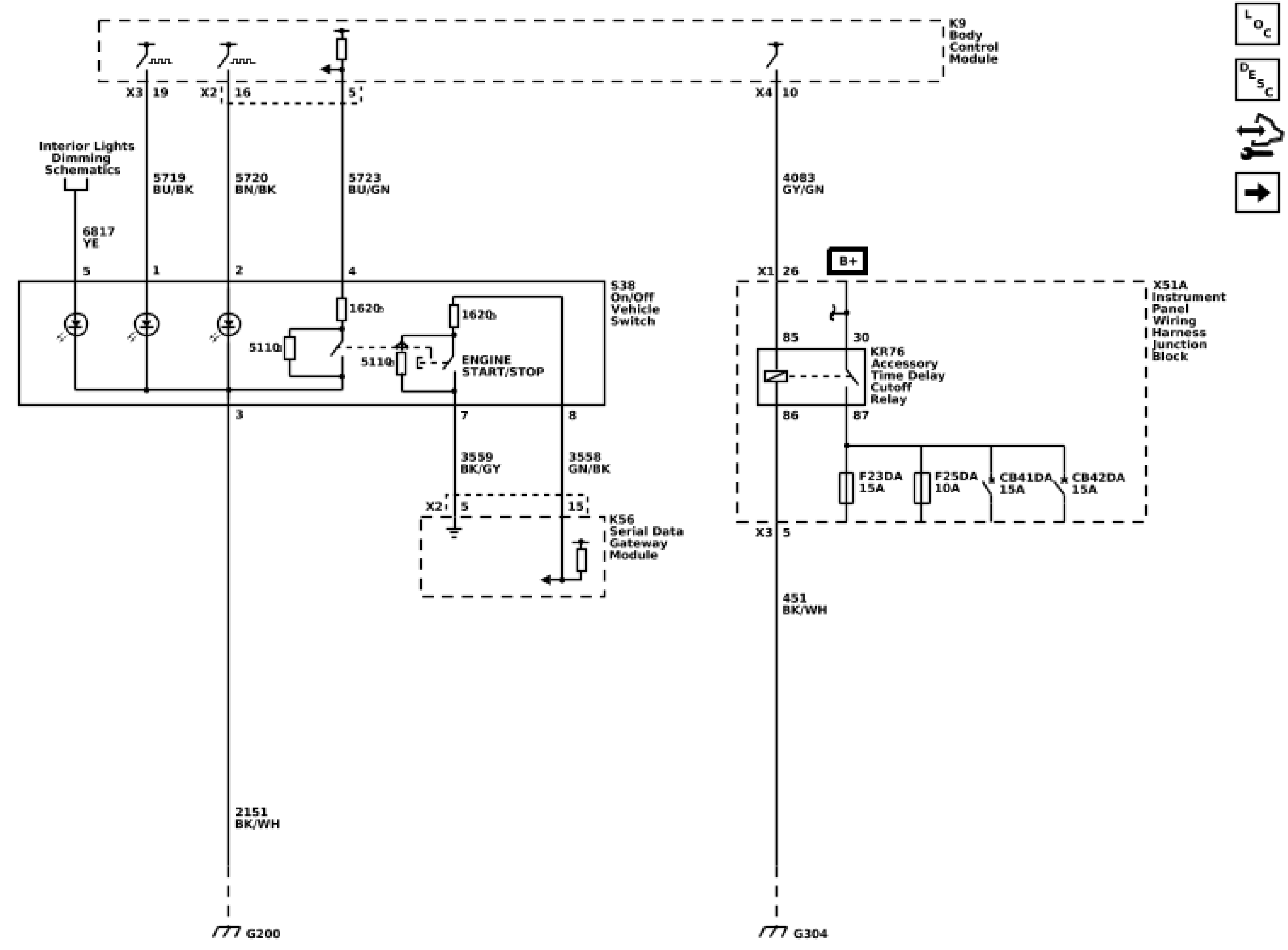
6370745

Power Distribution Schematics (F84UA Fuse and Lighting Control Module Fused Outputs - 2 of 2)


B+
B+ Bus
X50A Engine Wiring Harness Junction Block
F84UA 25A
X4 40
1740 RD/GY
X1 9
B+
K219 Lighting Control Module
F84UA
6
24 GN/WH
J110
24 GN/WH
X101 9
24 GN/WH
J407
24 GN/WH
4
E42L Rear Body Structure Stop Lamp - Left
24 GN/WH
4
E42R Rear Body Structure Stop Lamp - Right
24 GN/WH
UVB-UV2
24 GN/WH
X301 22
24 GN/WH
X2 13
A11 Radio
DD8
24 GN/WH
X402C 8
24 GN/WH
1
A10 Inside Rearview Mirror

6370746

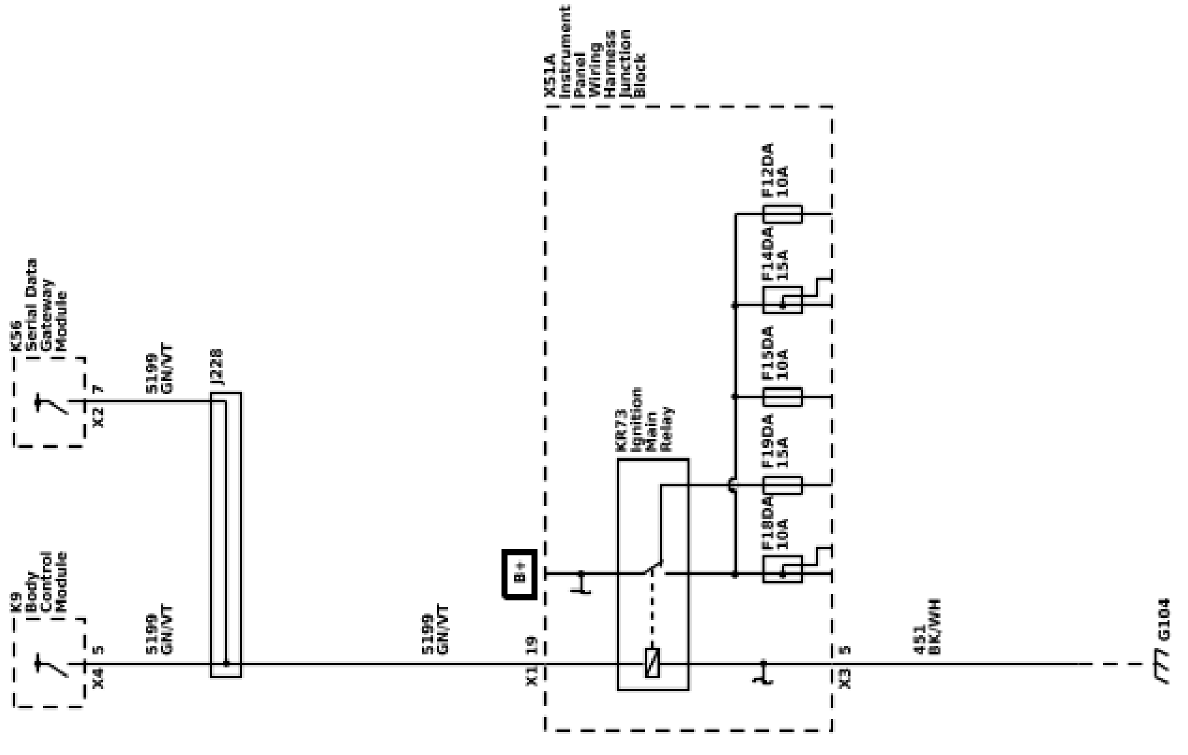
Power Moding Schematics (On/Off Vehicle Switch and Retained Accessory Power)


K9 Body Control Module
X3 19
X2 16
5
X4 10
Interior Lights Dimming Schematics
5719 BU/BK
5720 BN/BK
5723 BU/GN
4083 GY/GN
6817 YE
5
1
2
4
S38 On/Off Vehicle Switch
1620Ω
5110Ω
1620Ω
5110Ω
ENGINE START/STOP
3
7
8
3559 BK/GY
3558 GN/BK
X2 5
15
K56 Serial Data Gateway Module
2151 BK/WH
G200
B+
X1 26
X51A Instrument Panel Wiring Harness Junction Block
85
30
KR76 Accessory Time Delay Cutoff Relay
86
87
F23DA 15A
F25DA 10A
CB41DA 15A
CB42DA 15A
X3 5
451 BK/WH
G304

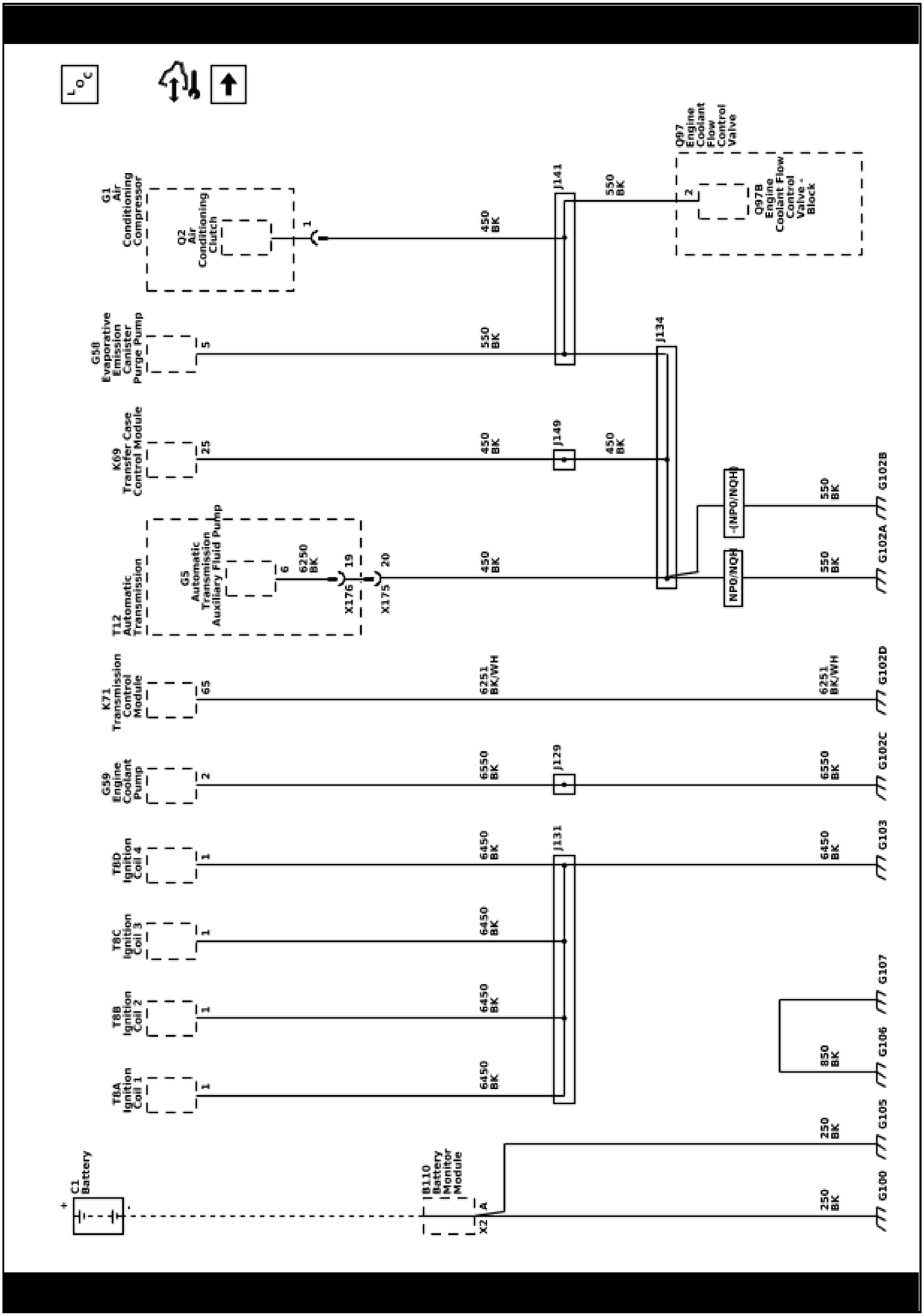
6331838

Power Moding Schematics (Ignition Main Relay)

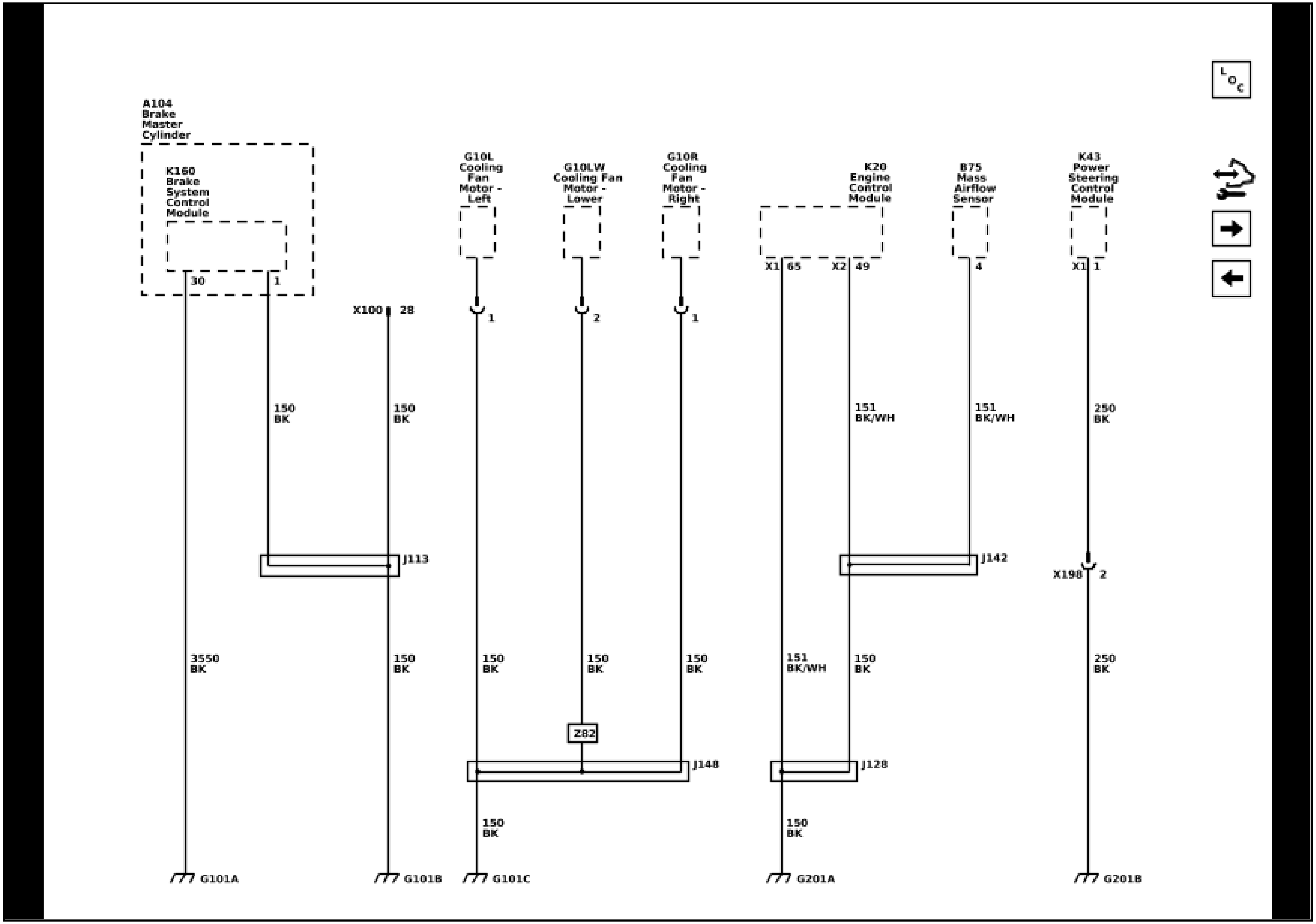
6331839


K56 Serial Data Gateway Module
X2 7
5199 GN/VT
J228
K9 Body Control Module
X4 5
5199 GN/VT
5199 GN/VT
X1 19
B+
X51A Instrument Panel Wiring Harness Junction Block
KR73 Ignition Main Relay
F12DA 10A
F14DA 15A
F15DA 10A
F19DA 15A
F18DA 10A
X3 5
451 BK/WH
G104

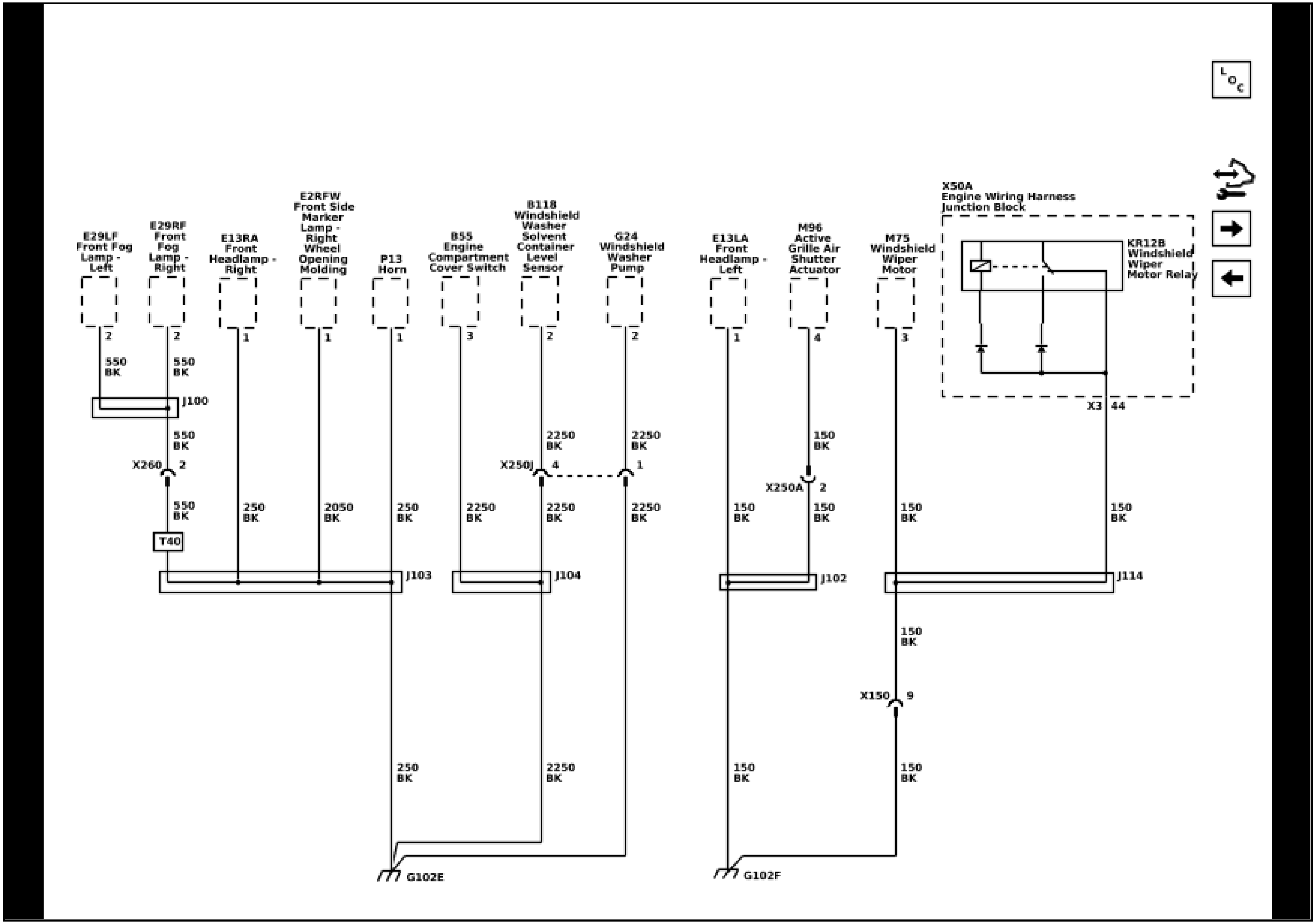
Ground Distribution Schematics (G100, G102A, G102B, G102C, G102D, G103, G105, G106, and G107)


6331840
C1 Battery
B110 Battery Monitor Module
X2 A
250 BK
G100
250 BK
G105
850 BK
G106
G107
T8A Ignition Coil 1
1
6450 BK
T8B Ignition Coil 2
1
6450 BK
T8C Ignition Coil 3
1
6450 BK
T8D Ignition Coil 4
1
6450 BK
J131
6450 BK
G103
G59 Engine Coolant Pump
2
6550 BK
J129
6550 BK
G102C
K71 Transmission Control Module
65
6251 BK/WH
6251 BK/WH
G102D
T12 Automatic Transmission
G5 Automatic Transmission Auxiliary Fluid Pump
6
6250 BK
19
X176
20
X175
450 BK
NPO/NQH
550 BK
G102A
-(NPO/NQH)
550 BK
G102B
K69 Transfer Case Control Module
25
450 BK
J149
450 BK
J134
G58 Evaporative Emission Canister Purge Pump
5
550 BK
G1 Air Conditioning Compressor
Q2 Air Conditioning Clutch
1
450 BK
J141
550 BK
Q97 Engine Coolant Flow Control Valve
2
Q97B Engine Coolant Flow Control Valve - Block

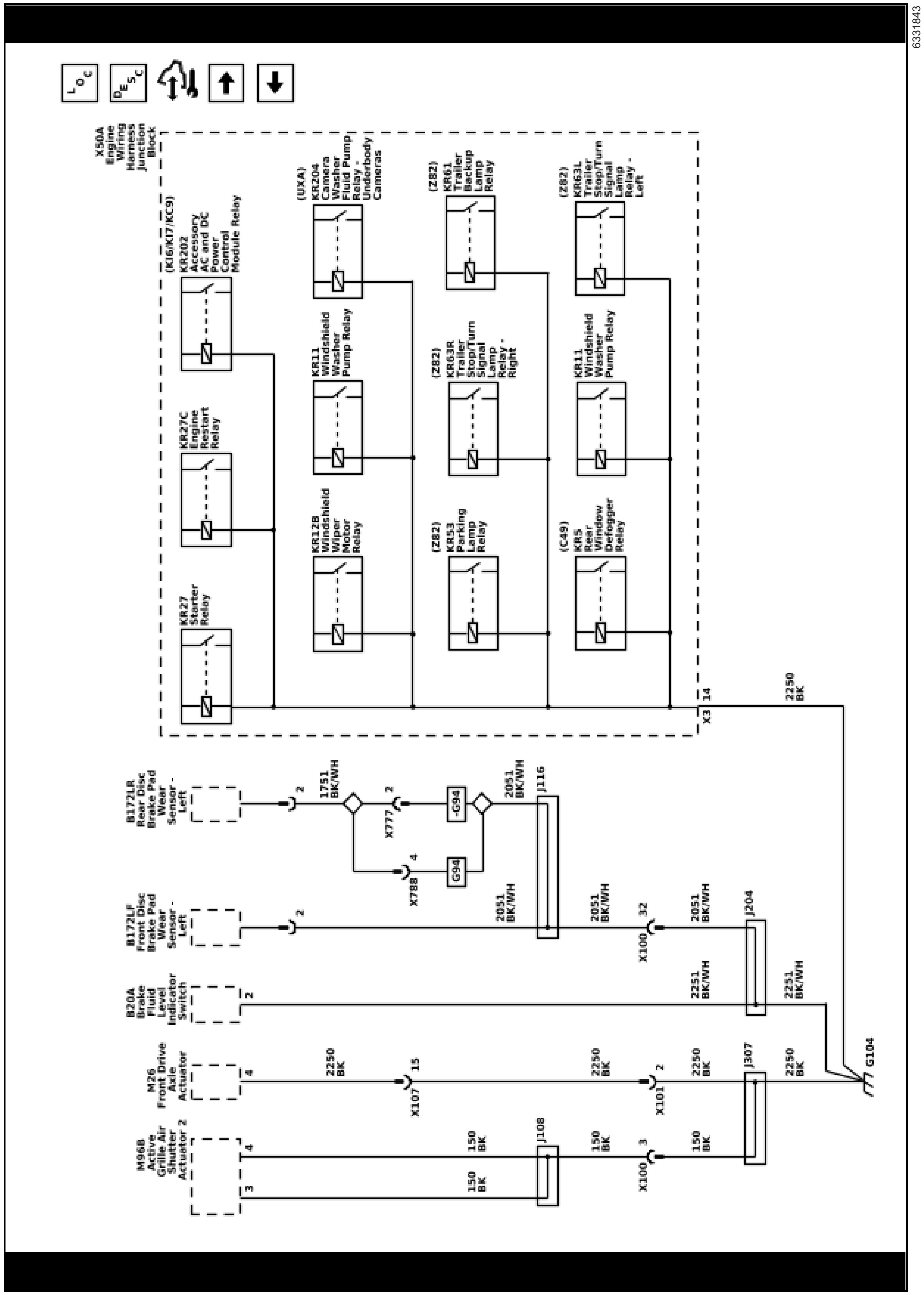
Ground Distribution Schematics (G101A, G101B, G101C, G201A, and G201B)


A104
Brake
Master
Cylinder
K160
Brake
System
Control
Module
30
1
X100
28
G10L
Cooling
Fan
Motor -
Left
1
G10LW
Cooling Fan
Motor -
Lower
2
G10R
Cooling
Fan
Motor -
Right
1
K20
Engine
Control
Module
X1 65
X2 49
B75
Mass
Airflow
Sensor
4
K43
Power
Steering
Control
Module
X1 1
150
BK
150
BK
151
BK/WH
151
BK/WH
250
BK
J113
J142
X190
2
3550
BK
150
BK
150
BK
150
BK
150
BK
151
BK/WH
150
BK
250
BK
Z82
J148
J128
150
BK
150
BK
G101A
G101B
G101C
G201A
G201B
6331841

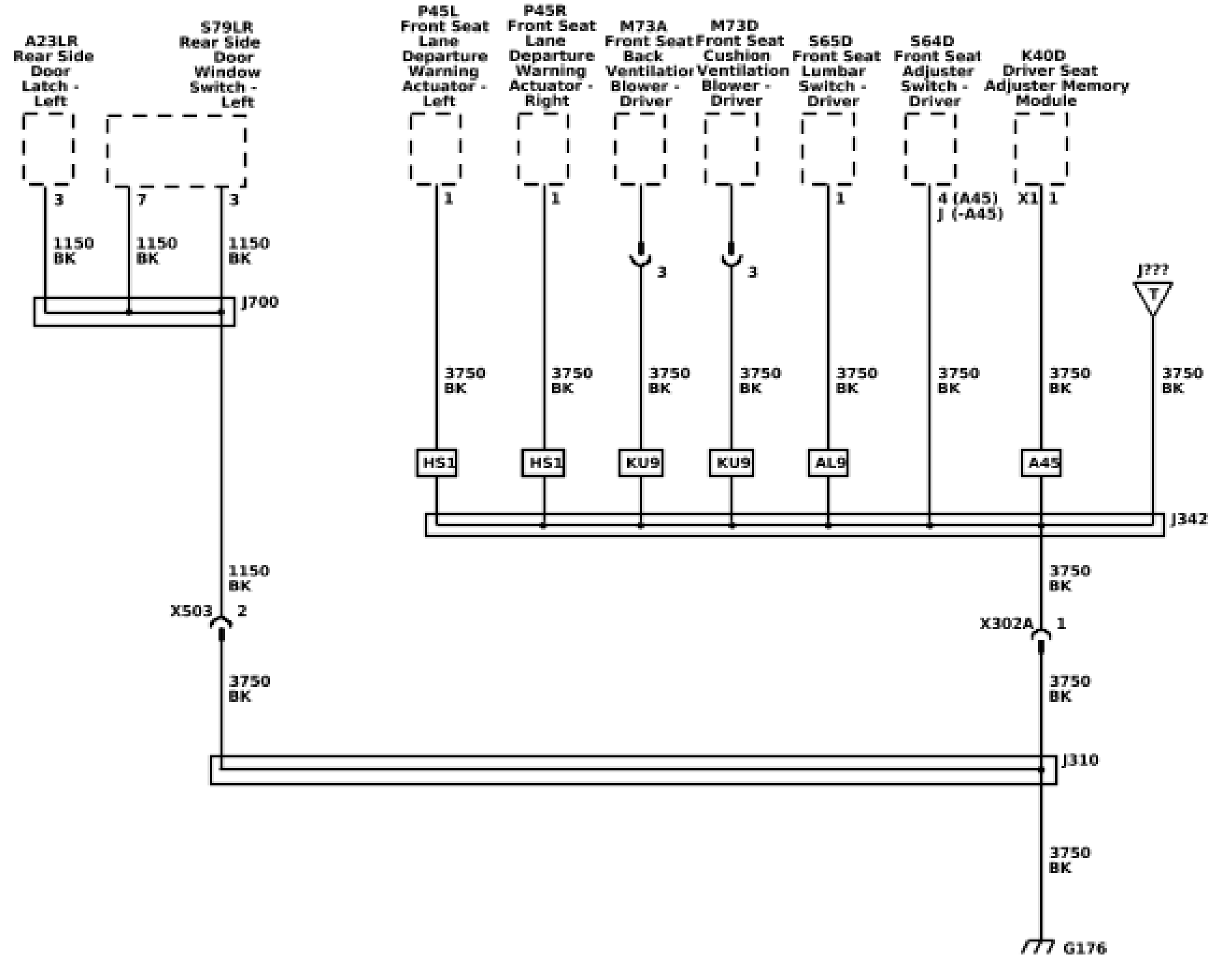
Ground Distribution Schematics (G102E and G102F)


E29LF
Front Fog Lamp - Left
E29RF
Front Fog Lamp - Right
E13RA
Front Headlamp - Right
E2RFW
Front Side Marker Lamp - Right Wheel Opening Molding
P13
Horn
B55
Engine Compartment Cover Switch
B118
Windshield Washer Solvent Container Level Sensor
G24
Windshield Washer Pump
E13LA
Front Headlamp - Left
M96
Active Grille Air Shutter Actuator
M75
Windshield Wiper Motor
X50A
Engine Wiring Harness Junction Block
KR12B
Windshield Wiper Motor Relay
X3 44
2
550 BK
J100
X260 2
T40
1
250 BK
2050 BK
3
2250 BK
X250J 4
4
150 BK
X250A 2
J103
J104
J102
J114
X150 9
G102E
G102F
6331842

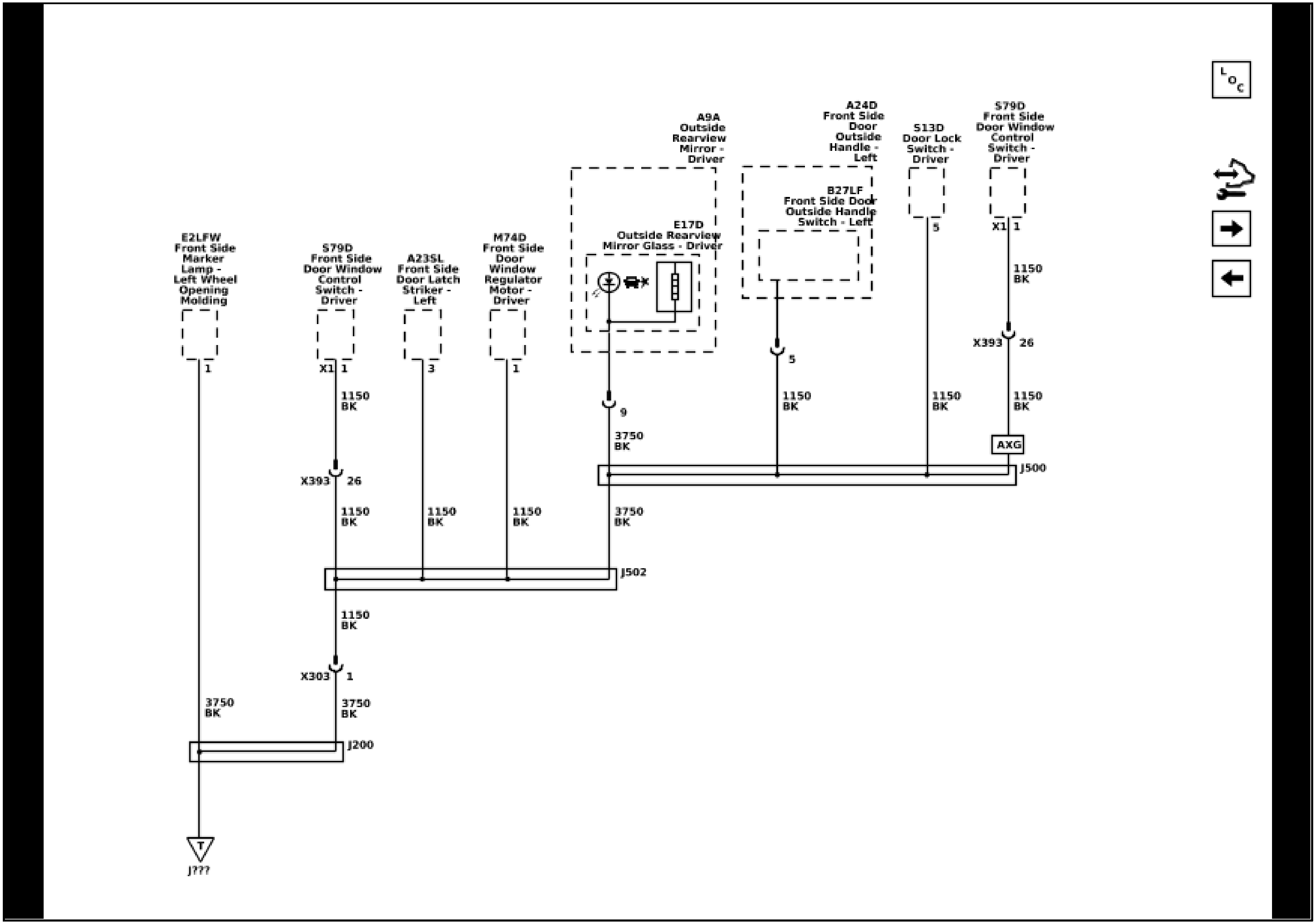
Ground Distribution Schematics (G104)


6331843
X50A Engine Wiring Harness Junction Block
(KI6/KI7/KC9) KR202 Accessory AC and DC Power Control Module Relay
KR27C Engine Restart Relay
KR27 Starter Relay
(UXA) KR204 Camera Washer Fluid Pump Relay - Underbody Cameras
KR11 Windshield Washer Pump Relay
KR12B Windshield Wiper Motor Relay
(Z82) KR61 Trailer Backup Lamp Relay
(Z82) KR63R Trailer Stop/Turn Signal Lamp Relay - Right
(Z82) KR53 Parking Lamp Relay
(Z82) KR63L Trailer Stop/Turn Signal Lamp Relay - Left
KR11 Windshield Washer Pump Relay
(C49) KR5 Rear Window Defogger Relay
X3 14
2250 BK
B172LR Rear Disc Brake Pad Wear Sensor - Left
2
1751 BK/WH
X777 2
-G94
2051 BK/WH
J116
X788 4
G94
B172LF Front Disc Brake Pad Wear Sensor - Left
2
2051 BK/WH
2051 BK/WH
X100 32
2051 BK/WH
J204
B20A Brake Fluid Level Indicator Switch
2
2251 BK/WH
2251 BK/WH
M26 Front Drive Axle Actuator
4
2250 BK
X107 15
2250 BK
X101 2
2250 BK
J307
2250 BK
G104
M96B Active Grille Air Shutter Actuator 2
4
3
150 BK
150 BK
J108
150 BK
X100 3
150 BK

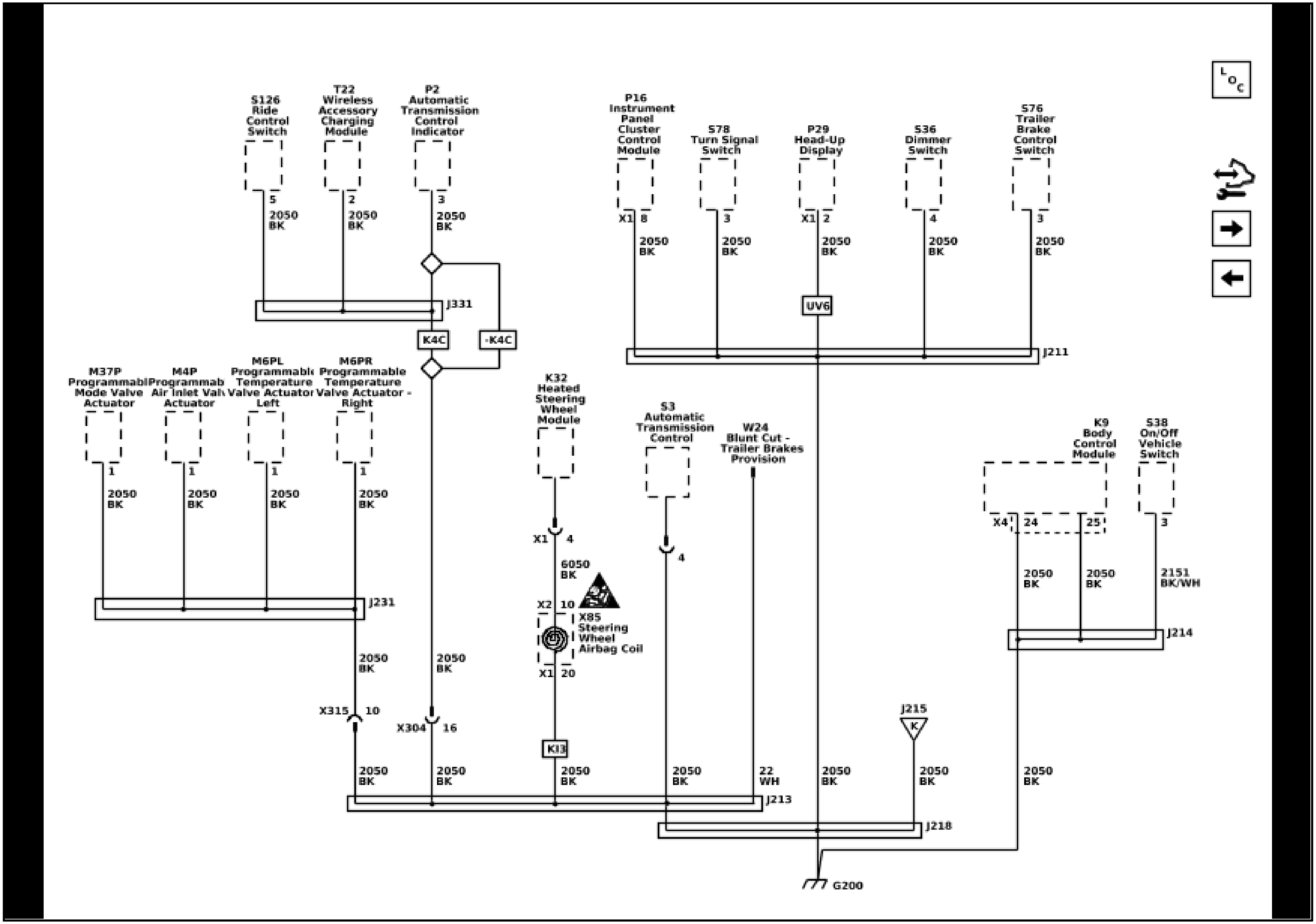
Ground Distribution Schematics (G176 1 of 2)


A23LR
Rear Side
Door
Latch -
Left
S79LR
Rear Side
Door
Window
Switch -
Left
P45L
Front Seat
Lane
Departure
Warning
Actuator -
Left
P45R
Front Seat
Lane
Departure
Warning
Actuator -
Right
M73A
Front Seat
Back
Ventilation
Blower -
Driver
M73D
Front Seat
Cushion
Ventilation
Blower -
Driver
S65D
Front Seat
Lumbar
Switch -
Driver
S64D
Front Seat
Adjuster
Switch -
Driver
K40D
Driver Seat
Adjuster Memory
Module
3
7
3
1
1
3
3
1
4 (A45)
J (-A45)
X1 1
1150
BK
1150
BK
1150
BK
J700
J???
T
3750
BK
3750
BK
3750
BK
3750
BK
3750
BK
3750
BK
3750
BK
3750
BK
HS1
HS1
KU9
KU9
AL9
A45
J342
1150
BK
X503
2
3750
BK
3750
BK
X302A
1
3750
BK
J310
3750
BK
G176

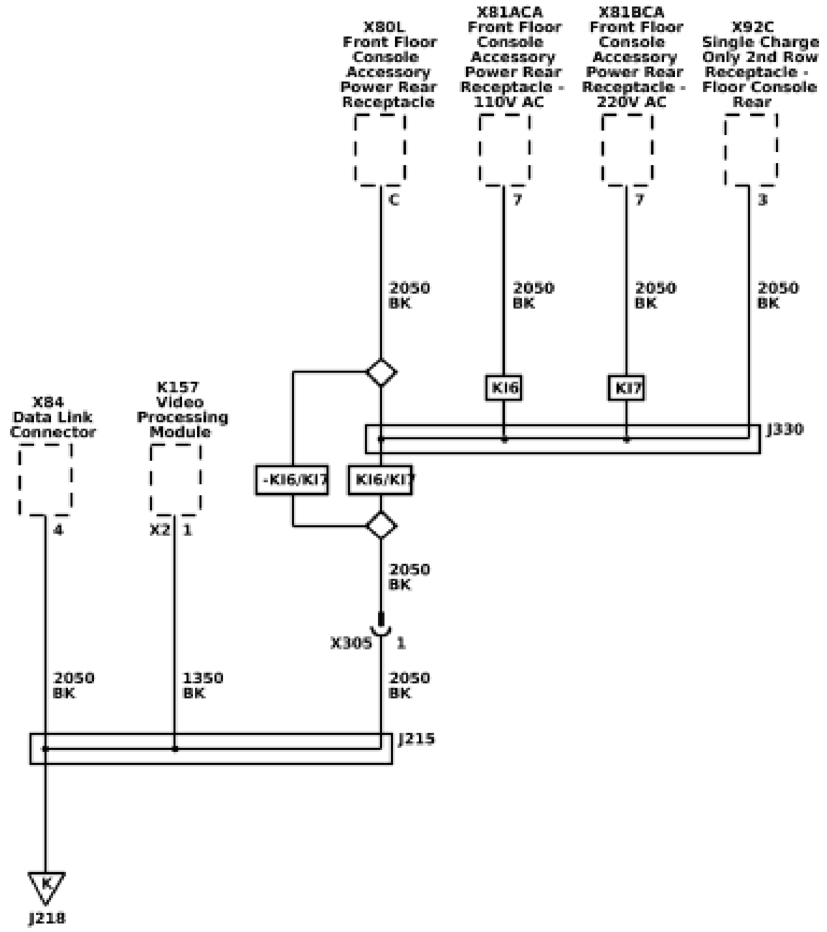
Ground Distribution Schematics (G176 2 of 2)


E2LFW
Front Side
Marker
Lamp -
Left Wheel
Opening
Molding
1
S79D
Front Side
Door Window
Control
Switch -
Driver
X1 1
1150
BK
X393 26
1150
BK
A23SL
Front Side
Door Latch
Striker -
Left
3
1150
BK
M74D
Front Side
Door
Window
Regulator
Motor -
Driver
1
1150
BK
A9A
Outside
Rearview
Mirror -
Driver
E17D
Outside Rearview
Mirror Glass - Driver
9
3750
BK
3750
BK
A24D
Front Side
Door
Outside
Handle -
Left
B27LF
Front Side Door
Outside Handle
Switch - Left
5
1150
BK
S13D
Door Lock
Switch -
Driver
5
1150
BK
S79D
Front Side
Door Window
Control
Switch -
Driver
X1 1
1150
BK
X393 26
1150
BK
AXG
J500
J502
1150
BK
X303 1
3750
BK
3750
BK
J200
T
J???
6331845

Ground Distribution Schematics (G200 1 of 2)

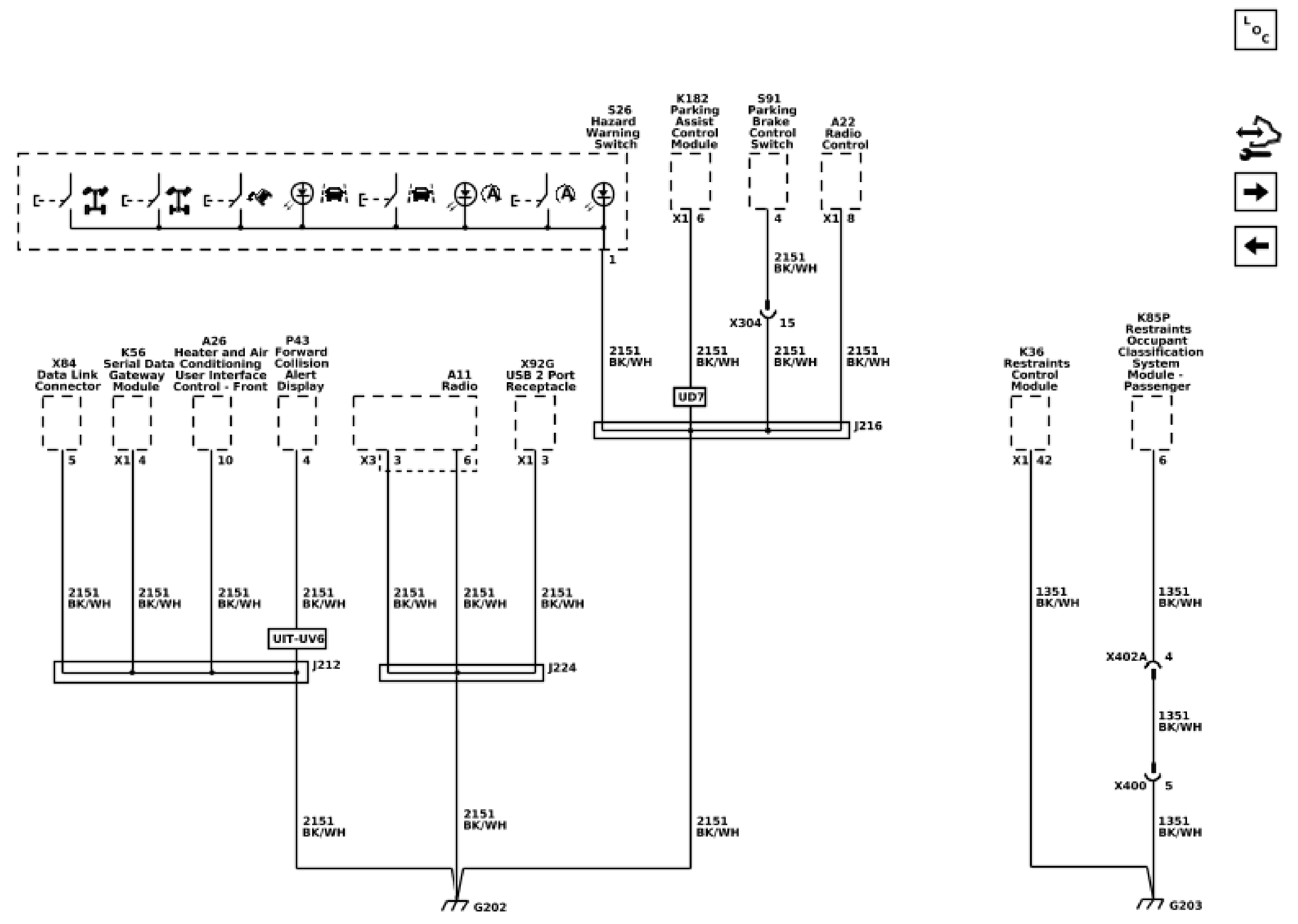

S126 Ride Control Switch
5
2050 BK
T22 Wireless Accessory Charging Module
2
2050 BK
P2 Automatic Transmission Control Indicator
3
2050 BK
J331
K4C
-K4C
P16 Instrument Panel Cluster Control Module
X1 8
2050 BK
S78 Turn Signal Switch
3
2050 BK
P29 Head-Up Display
X1 2
2050 BK
UV6
S36 Dimmer Switch
4
2050 BK
S76 Trailer Brake Control Switch
3
2050 BK
J211
M37P Programmable Mode Valve Actuator
1
2050 BK
M4P Programmable Air Inlet Valve Actuator
1
2050 BK
M6PL Programmable Temperature Valve Actuator Left
1
2050 BK
M6PR Programmable Temperature Valve Actuator - Right
1
2050 BK
J231
2050 BK
X315 10
2050 BK
X304 16
2050 BK
K32 Heated Steering Wheel Module
X1 4
6050 BK
X2 10
X85 Steering Wheel Airbag Coil
X1 20
KI3
2050 BK
S3 Automatic Transmission Control
4
2050 BK
W24 Blunt Cut - Trailer Brakes Provision
22 WH
J213
2050 BK
J215
K
2050 BK
J218
G200
K9 Body Control Module
X4 24
25
2050 BK
2050 BK
S38 On/Off Vehicle Switch
3
2151 BK/WH
J214
2050 BK
6331846

Ground Distribution Schematics (G200 2 of 2)


X80L
Front Floor Console Accessory Power Rear Receptacle
X81ACA
Front Floor Console Accessory Power Rear Receptacle - 110V AC
X81BCA
Front Floor Console Accessory Power Rear Receptacle - 220V AC
X92C
Single Charge Only 2nd Row Receptacle - Floor Console Rear
C
7
7
3
2050
BK
2050
BK
2050
BK
2050
BK
KI6
KI7
J330
-KI6/KI7
KI6/KI7
2050
BK
X305
1
2050
BK
X84
Data Link Connector
K157
Video Processing Module
4
X2
1
2050
BK
1350
BK
J215
K
J218

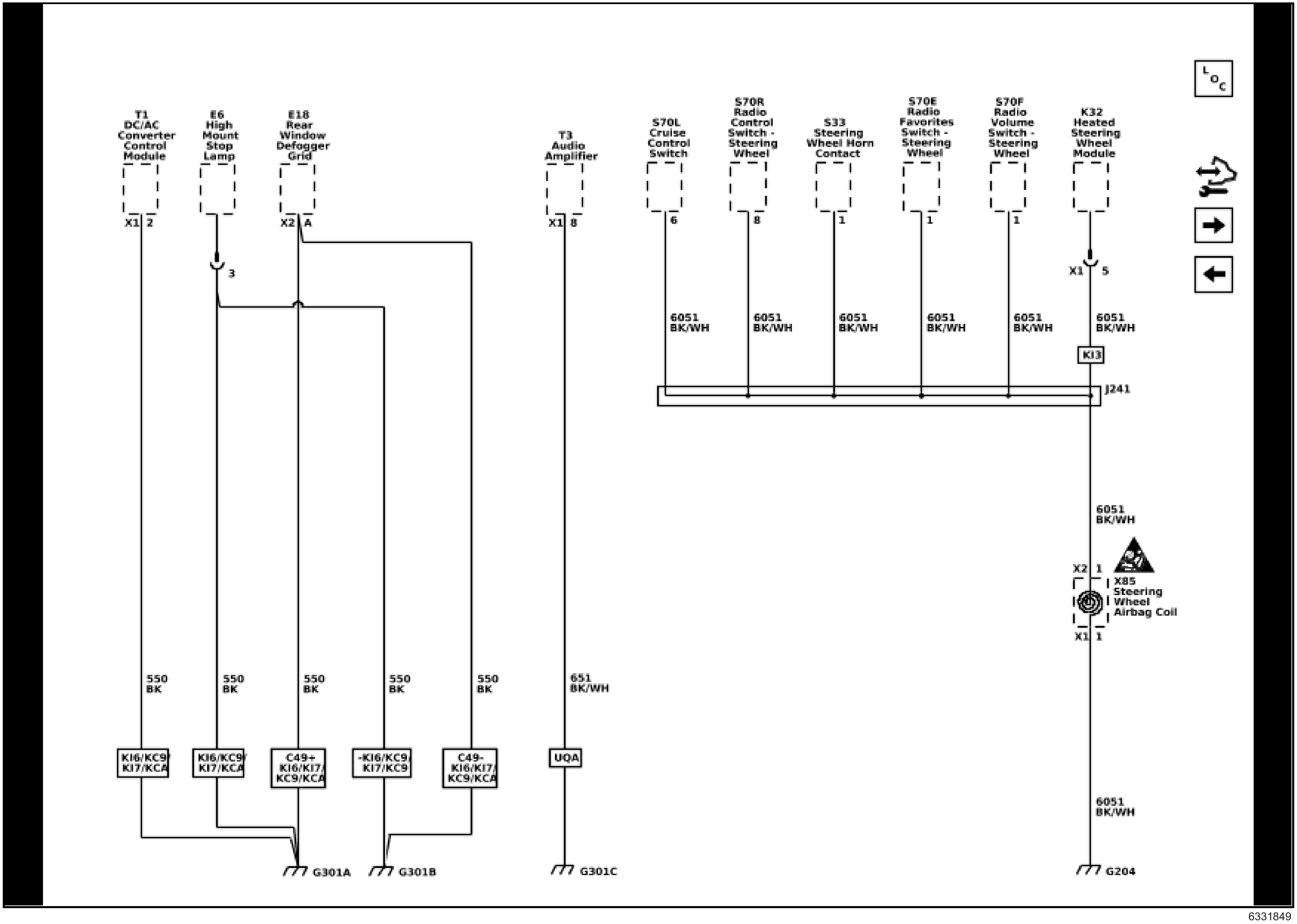
6331847

Ground Distribution Schematics (G202 and G203)

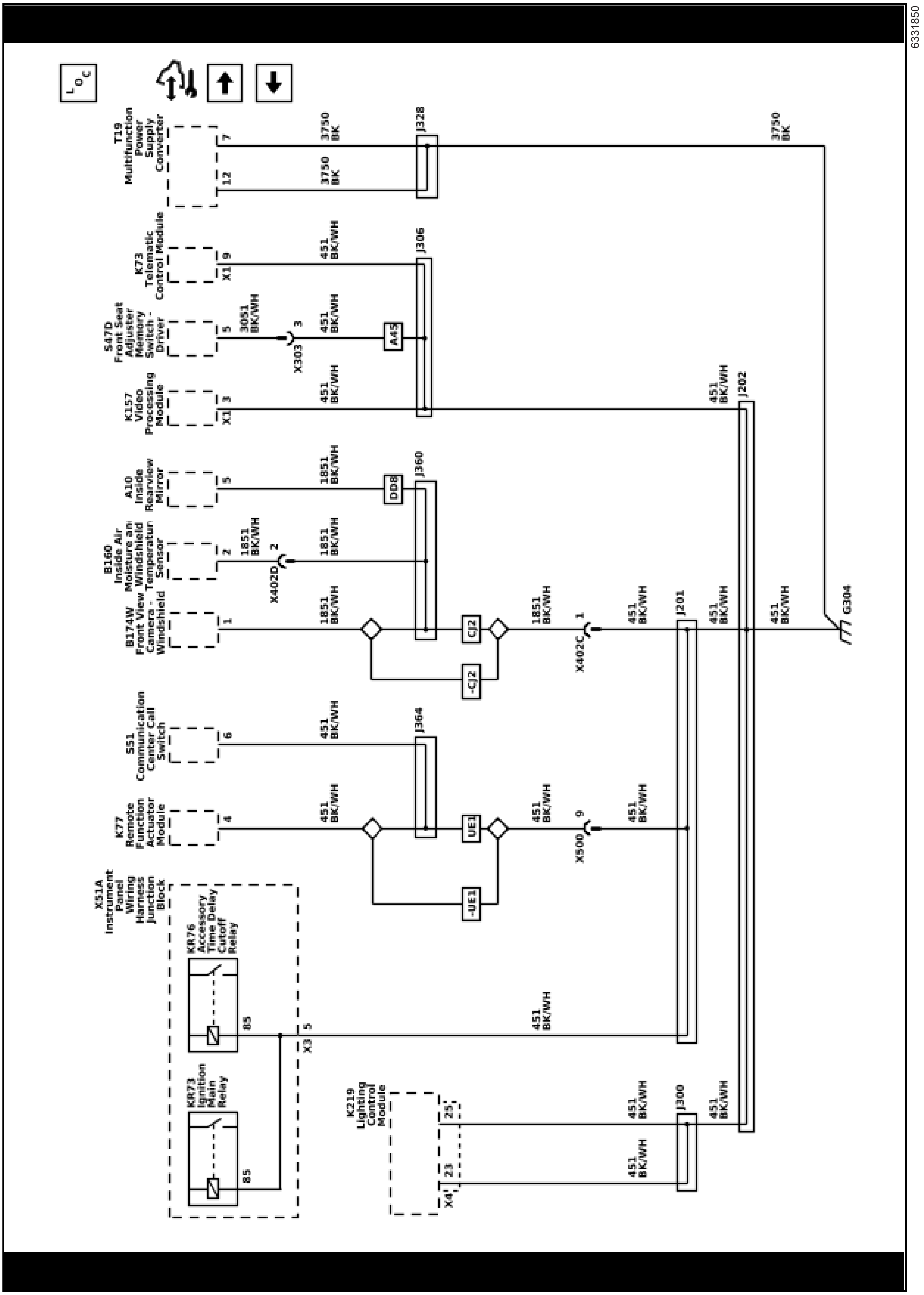

S26 Hazard Warning Switch
1
K182 Parking Assist Control Module
X1 6
S91 Parking Brake Control Switch
4
A22 Radio Control
X1 8
2151 BK/WH
X304 15
UD7
J216
X84 Data Link Connector
5
K56 Serial Data Gateway Module
X1 4
A26 Heater and Air Conditioning User Interface Control - Front
10
P43 Forward Collision Alert Display
4
A11 Radio
X3 3
6
X92G USB 2 Port Receptacle
X1 3
UIT-UV6
J212
J224
G202
K36 Restraints Control Module
X1 42
K85P Restraints Occupant Classification System Module - Passenger
6
1351 BK/WH
X402A 4
X400 5
G203

6331848

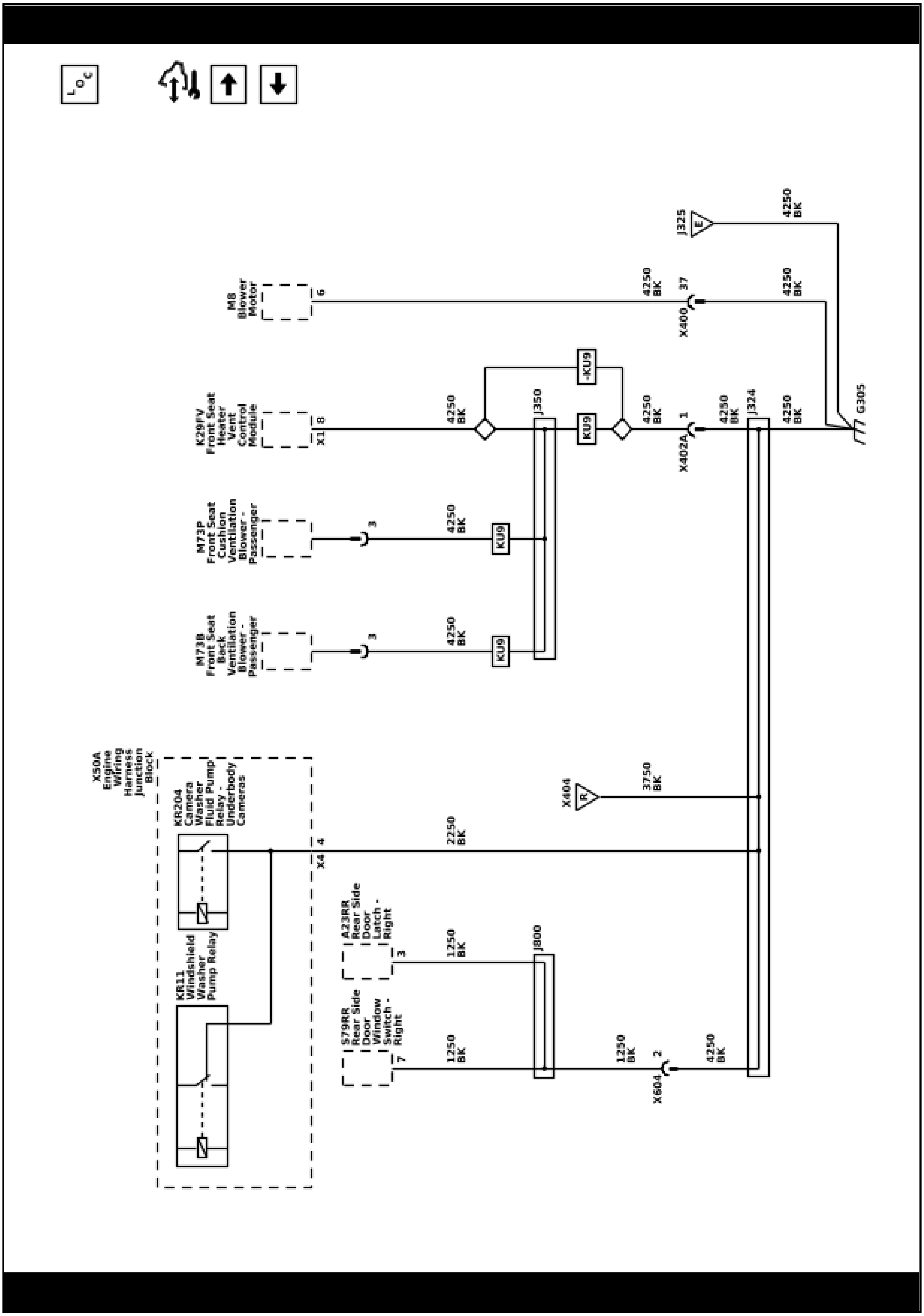
Ground Distribution Schematics (G204, G301A, G301B, and G301C)


T1 DC/AC Converter Control Module
X1 2
E6 High Mount Stop Lamp
3
E18 Rear Window Defogger Grid
X2 A
T3 Audio Amplifier
X1 8
S70L Cruise Control Switch
6
S70R Radio Control Switch - Steering Wheel
8
S33 Steering Wheel Horn Contact
1
S70E Radio Favorites Switch - Steering Wheel
1
S70F Radio Volume Switch - Steering Wheel
1
K32 Heated Steering Wheel Module
X1 5
6051 BK/WH
KI3
J241
X2 1
X85 Steering Wheel Airbag Coil
X1 1
550 BK
651 BK/WH
KI6/KC9/KI7/KCA
C49+ KI6/KI7/KC9/KCA
-KI6/KC9/KI7/KC9
C49- KI6/KI7/KC9/KCA
UQA
G301A
G301B
G301C
G204
6331849

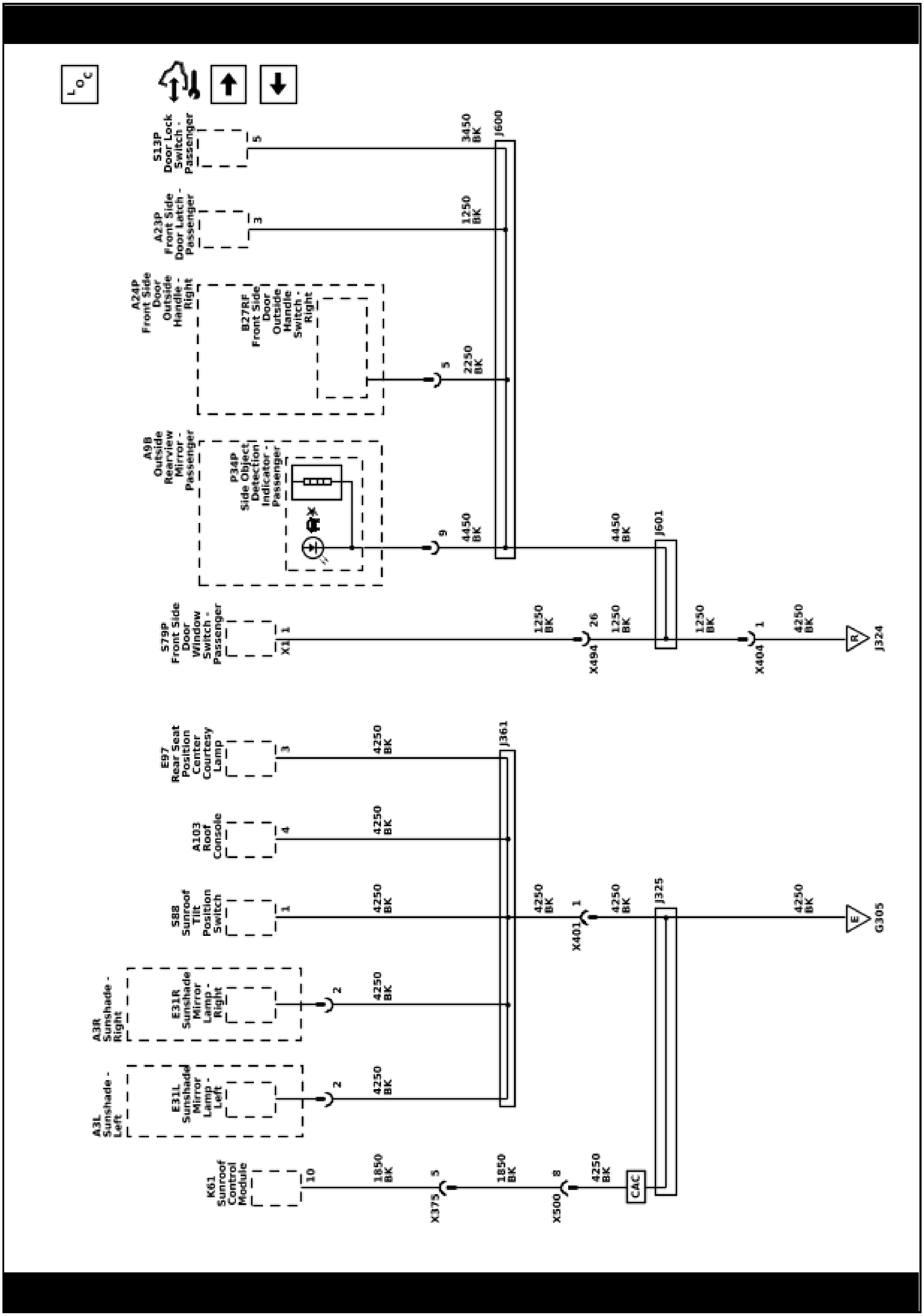
Ground Distribution Schematics (G304)


6331850
T19 Multifunction Power Supply Converter
7
12
3750 BK
J328
K73 Telematic Control Module
X1 9
451 BK/WH
J306
S47D Front Seat Adjuster Memory Switch - Driver
5
3051 BK/WH
X303 3
A45
K157 Video Processing Module
X1 3
J202
A10 Inside Rearview Mirror
1851 BK/WH
DD8
J360
B160 Inside Air Moisture and Windshield Temperature Sensor
2
X402D 2
B174W Front View Camera - Windshield
1
CJ2
-CJ2
X402C 1
J201
G304
S51 Communication Center Call Switch
6
J364
K77 Remote Function Actuator Module
4
UE1
-UE1
X500 9
X51A Instrument Panel Wiring Harness Junction Block
KR76 Accessory Time Delay Cutoff Relay
85
X3 5
KR73 Ignition Main Relay
85
K219 Lighting Control Module
25
23
X4
J300

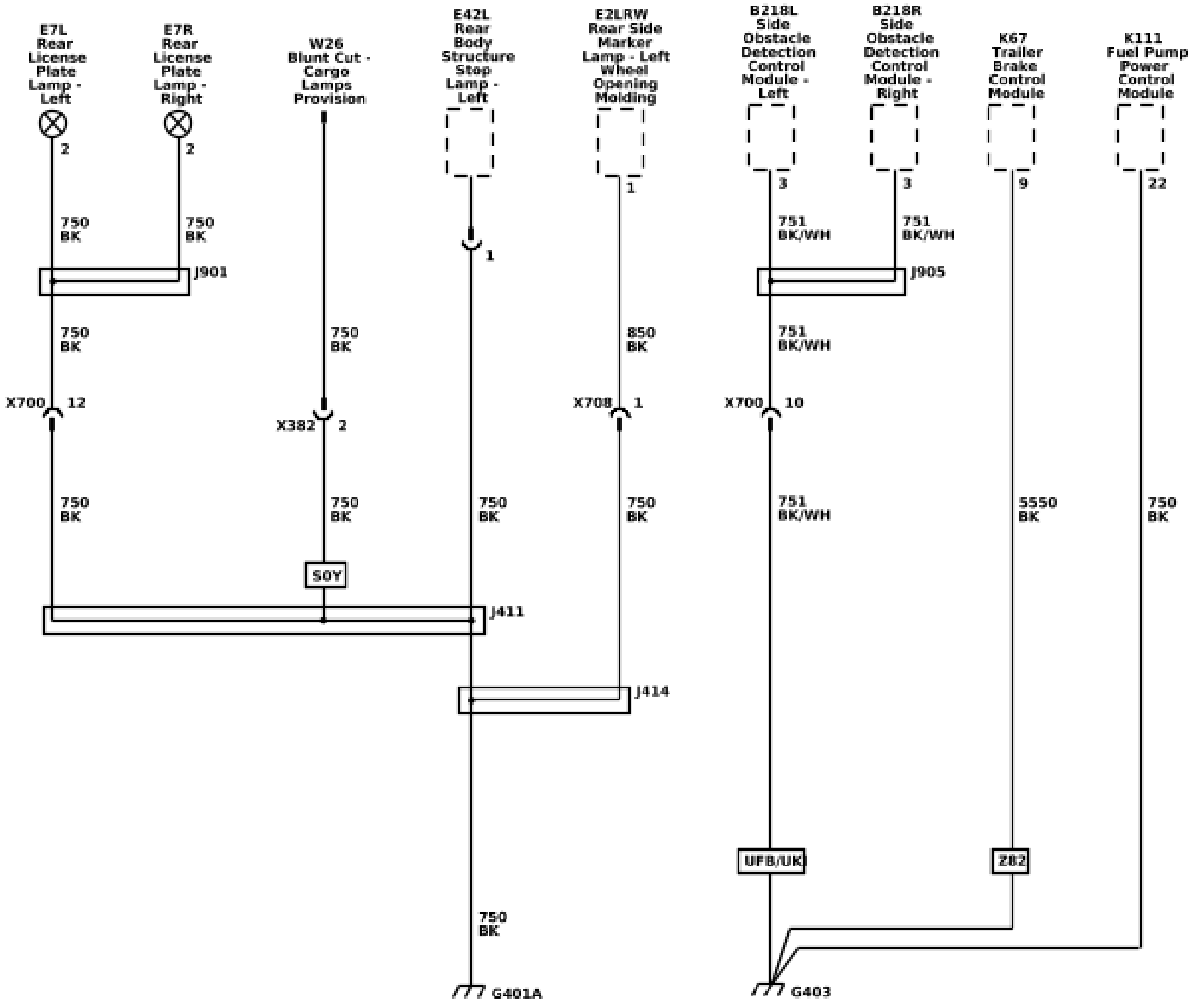
Ground Distribution Schematics (G305 1 of 2)


6331851
M8 Blower Motor
6
K29FV Front Seat Heater Vent Control Module
X1 8
M73P Front Seat Cushion Ventilation Blower - Passenger
3
M73B Front Seat Back Ventilation Blower - Passenger
3
KU9
KU9
KU9
-KU9
J350
4250 BK
4250 BK
4250 BK
4250 BK
4250 BK
4250 BK
4250 BK
4250 BK
4250 BK
J325
E
X400 37
X402A 1
J324
G305
X50A Engine Wiring Harness Junction Block
KR204 Camera Washer Fluid Pump Relay - Underbody Cameras
KR11 Windshield Washer Pump Relay
X4 4
2250 BK
X404
R
3750 BK
A23RR Rear Side Door Latch - Right
3
1250 BK
J800
S79RR Rear Side Door Window Switch - Right
7
1250 BK
1250 BK
X604 2
4250 BK

Ground Distribution Schematics (G305 2 of 2)

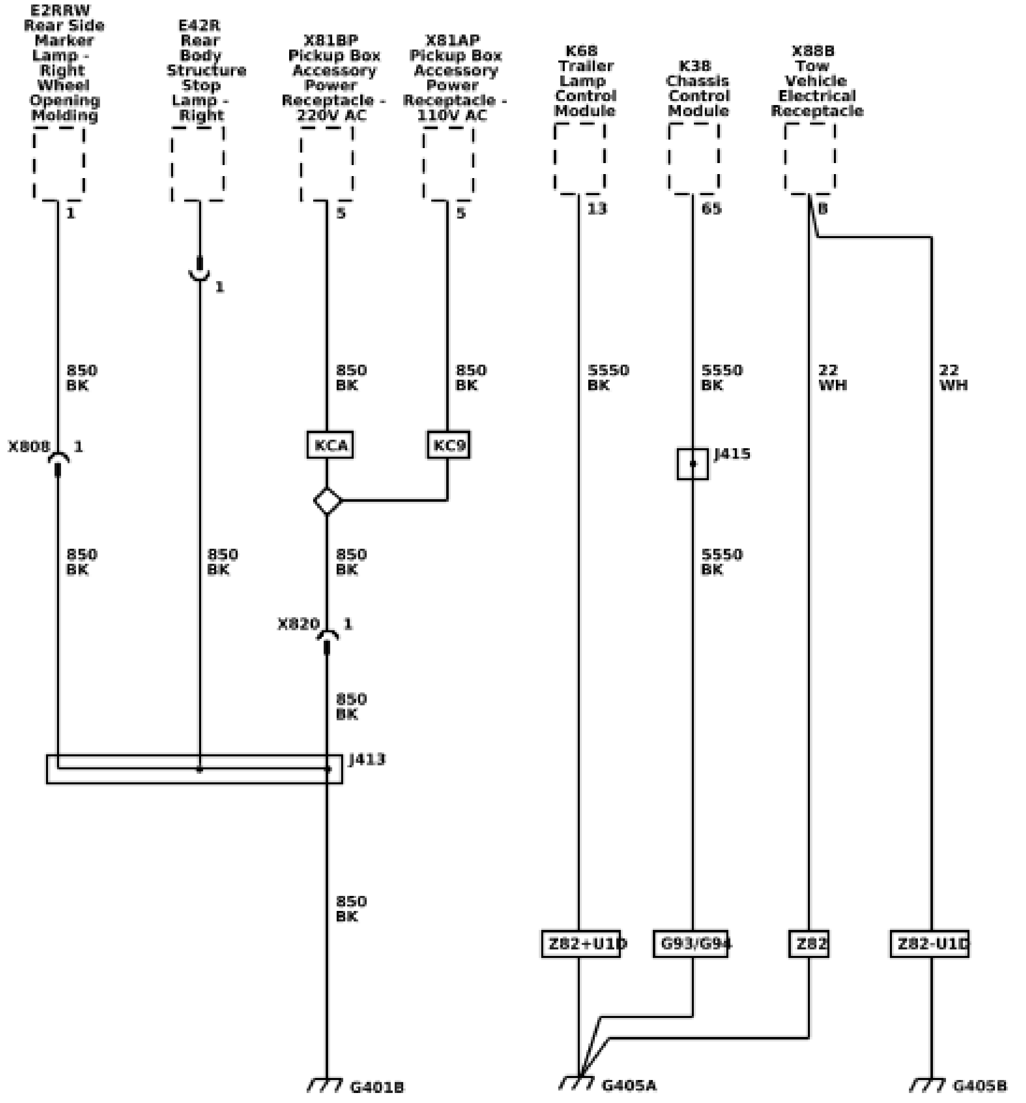

6331852
S13P Door Lock Switch - Passenger
5
3450 BK
J600
A23P Front Side Door Latch - Passenger
3
1250 BK
A24P Front Side Door Outside Handle - Right
B27RF Front Side Door Outside Handle Switch - Right
5
2250 BK
A9B Outside Rearview Mirror - Passenger
P34P Side Object Detection Indicator - Passenger
9
4450 BK
4450 BK
J601
S79P Front Side Door Window Switch - Passenger
X1 1
1250 BK
26
X494
1250 BK
1250 BK
1
X404
4250 BK
R
J324
E97 Rear Seat Position Center Courtesy Lamp
3
4250 BK
J361
A103 Roof Console
4
4250 BK
S88 Sunroof Tilt Position Switch
1
4250 BK
4250 BK
1
X401
4250 BK
J325
4250 BK
E
G305
A3R Sunshade - Right
E31R Sunshade Mirror Lamp - Right
2
4250 BK
A3L Sunshade - Left
E31L Sunshade Mirror Lamp - Left
2
4250 BK
K61 Sunroof Control Module
10
1850 BK
5
X375
1850 BK
8
X500
4250 BK
CAC

Ground Distribution Schematics (G401A and G403)


E7L
Rear
License
Plate
Lamp -
Left
2
750
BK
E7R
Rear
License
Plate
Lamp -
Right
2
750
BK
J901
750
BK
X700
12
750
BK
W26
Blunt Cut -
Cargo
Lamps
Provision
750
BK
X382
2
750
BK
S0Y
J411
E42L
Rear
Body
Structure
Stop
Lamp -
Left
1
750
BK
E2LRW
Rear Side
Marker
Lamp - Left
Wheel
Opening
Molding
1
850
BK
X708
1
750
BK
J414
750
BK
G401A
B218L
Side
Obstacle
Detection
Control
Module -
Left
3
751
BK/WH
B218R
Side
Obstacle
Detection
Control
Module -
Right
3
751
BK/WH
J905
751
BK/WH
X700
10
751
BK/WH
UFB/UK
K67
Trailer
Brake
Control
Module
9
5550
BK
Z82
K111
Fuel Pump
Power
Control
Module
22
750
BK
G403

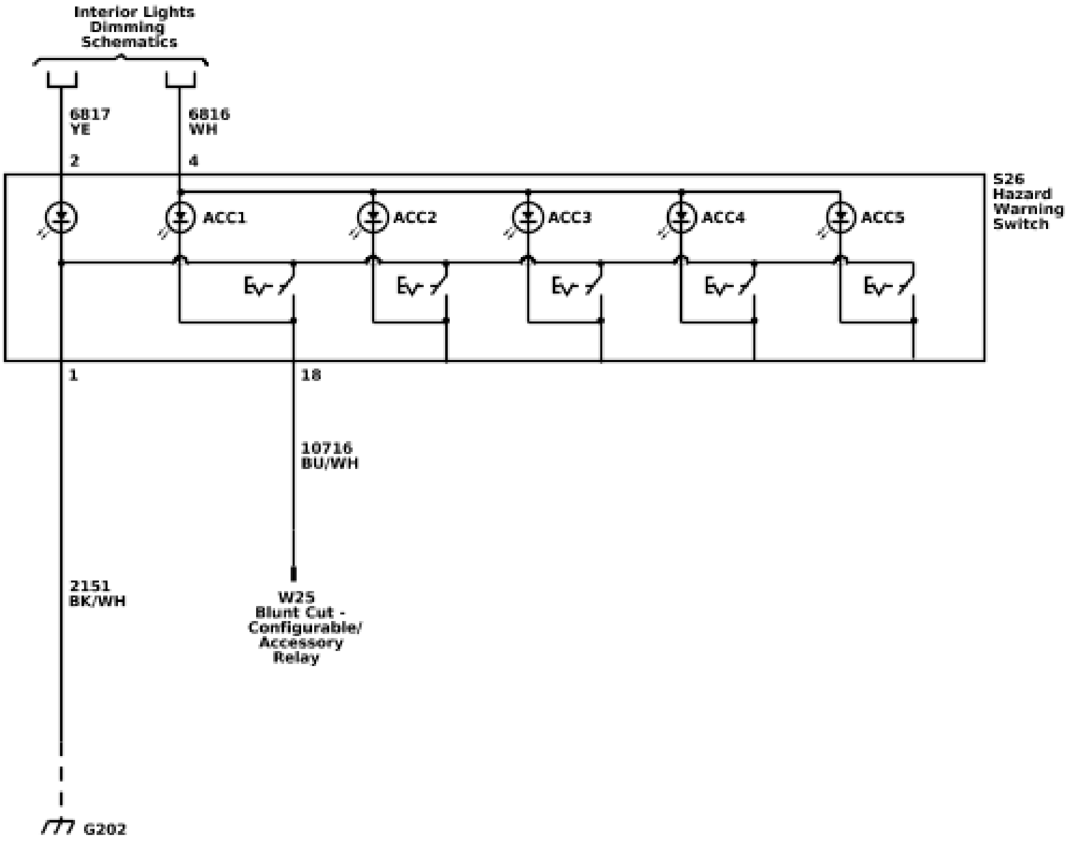
6331853

Ground Distribution Schematics (G401B, G405A, and G405B)


E2RRW
Rear Side Marker Lamp - Right Wheel Opening Molding
E42R
Rear Body Structure Stop Lamp - Right
X81BP
Pickup Box Accessory Power Receptacle - 220V AC
X81AP
Pickup Box Accessory Power Receptacle - 110V AC
K68
Trailer Lamp Control Module
K38
Chassis Control Module
X88B
Tow Vehicle Electrical Receptacle
1
1
5
5
13
65
B
850 BK
850 BK
850 BK
5550 BK
5550 BK
22 WH
22 WH
X808
1
KCA
KC9
J415
850 BK
850 BK
850 BK
5550 BK
X820
1
850 BK
J413
850 BK
Z82+U1D
G93/G94
Z82
Z82-U1D
G401B
G405A
G405B

6331854

Upfitter Provision Schematics (Accessory Provision)


Interior Lights Dimming Schematics
6817
YE
2
6816
WH
4
ACC1
ACC2
ACC3
ACC4
ACC5
S26
Hazard
Warning
Switch
1
18
10716
BU/WH
W25
Blunt Cut -
Configurable/
Accessory
Relay
2151
BK/WH
G202
6331855

Component Locator

Master Electrical Component List

Code	Name	Option	Location	Locator View	Connector End View
A3L	Sunshade - Left	—	In the passenger compartment, mounted to the left front of the headliner.	—	A3L Sunshade - Left (DEG)
A3R	Sunshade - Right	—	In the passenger compartment, mounted to the right front of the headliner.	—	A3R Sunshade - Right (DEG)
A7	Fuel Tank Fuel Pump Module	—	Under the vehicle, left side, in front of rear axle, mounted in the fuel tank.	Fuel Tank and Emission Components	A7 Fuel Tank Fuel Pump Module
A9A	Outside Rearview Mirror - Driver	—	Mounted on the outside of the driver door, at front.	Front of Vehicle Components	A9A Outside Rearview Mirror - Driver
A9B	Outside Rearview Mirror - Passenger	—	Mounted on the outside of the passenger door, at front.	Front of Vehicle Components	A9B Outside Rearview Mirror - Passenger
A10	Inside Rearview Mirror	DD8	In the front center of the passenger compartment, at the top center of the windshield.	• Headliner Components (- CAC) • Headliner Components (CAC)	A10 Inside Rearview Mirror
A11	Radio	—	In the instrument panel, right side, behind the instrument panel compartment, near body.	Instrument Panel - Rear	• A11 Radio X1 • A11 Radio X2 • A11 Radio X3 • A11 Radio X4 • A11 Radio X5 • A11 Radio X7 (IVD) • A11 Radio X8 (UXA) • A11 Radio X9
A16	Transfer Case Four Wheel Drive Actuator	NP0/NQH	Under the vehicle, mounted to the rear of the transfer case.	Engine Components - Left Rear	A16 Transfer Case Four Wheel Drive Actuator (NP0 / NQH)
A22	Radio Control	—	In the passenger compartment, on the instrument panel, at center.	Instrument Panel - Front	• A22 Radio Control X1 • A22 Radio Control X2
A23LR	Rear Side Door Latch - Left	—	In the left rear door, at the middle rear.	Left Rear Door Components	A23LR Rear Side Door Latch - Left
A23P	Front Side Door Latch - Passenger	—	In the passenger door, at the middle rear.	Passenger Door Components	A23P Front Side Door Latch - Passenger
A23RR	Rear Side Door Latch - Right	—	In the right rear door, at the middle rear.	Right Rear Door Components	A23RR Rear Side Door Latch - Right
A23SL	Front Side Door Latch Striker - Left	—	In the driver door, at the middle rear.	Driver Door Components	A23SL Front Side Door Latch Striker - Left
A24D	Front Side Door Outside Handle - Left	—	Mounted on the outside of the driver door, at rear.	Driver Door Components	A24D Front Side Door Outside Handle - Left
A24P	Front Side Door Outside Handle - Right	—	Mounted on the outside of the passenger door, at rear.	Passenger Door Components	A24P Front Side Door Outside Handle - Right
A26	Heater and Air Conditioning User Interface Control - Front	—	In the passenger compartment, at the center of the instrument panel, beneath A22 Radio Control	Instrument Panel - Front	A26 Heater and Air Conditioning User Interface Control - Front

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
A99	Pickup Box Endgate Latch	—	At the rear of the vehicle, within endgate.	*Endgate Components*	*A99 Pickup Box Endgate Latch*
A103	Roof Console	—	In the passenger compartment, mounted to the front center of the headliner.	- *Headliner Components (- CAC)* - *Headliner Components (CAC)*	*A103 Roof Console (DD8)*
A104	Brake Master Cylinder	—	In the front compartment, driver side rear, mounted to bulkhead.	—	—
B1	Air Conditioning Refrigerant Pressure Sensor	—	In the engine compartment.	*Engine Compartment Components - Right*	*B1 Air Conditioning Refrigerant Pressure Sensor*
B5LF	Front Wheel Speed Sensor - Left	—	Behind the left front wheel, between the front side of the steering knuckle and the brake rotor.	*Left Front Wheelhouse Components*	*B5LF Front Wheel Speed Sensor - Left*
B5LR	Rear Wheel Speed Sensor - Left	—	Behind the left rear wheel, between the rear side of the hub and the brake rotor.	*Left Rear Wheelhouse Components*	*B5LR Rear Wheel Speed Sensor - Left*
B5RF	Front Wheel Speed Sensor - Right	—	Behind the right front wheel, between the front side of the steering knuckle and the brake rotor.	*Right Front Wheelhouse Components*	*B5RF Front Wheel Speed Sensor - Right*
B5RR	Rear Wheel Speed Sensor - Right	—	Behind the right rear wheel, between the rear side of the hub and the brake rotor.	*Right Rear Wheelhouse Components*	*B5RR Rear Wheel Speed Sensor - Right*
B9	Ambient Air Temperature Sensor	—	Outside the vehicle, center, behind the front bumper fascia.	—	*B9 Ambient Air Temperature Sensor*
B10D	Sun Load and Ambient Light and Security Indicator Sensor	—	In the passenger compartment, on the top center of the instrument panel.	*Instrument Panel - Front*	*B10D Sun Load and Ambient Light and Security Indicator Sensor*
B12B	Automatic Transmission Fluid Pressure Sensor	—	Inside the automatic transmission assembly.	—	*B12B Automatic Transmission Fluid Pressure Sensor*
B13	Automatic Transmission Fluid Temperature Sensor	—	Inside the automatic transmission assembly.	—	*B13 Automatic Transmission Fluid Temperature Sensor*
B14A	Automatic Transmission Output Speed Sensor	—	Inside the automatic transmission assembly.	—	—
B14C	Automatic Transmission Input Speed Sensor	—	Inside the automatic transmission assembly.	—	—
B14D	Automatic Transmission Intermediate Speed Sensor	—	Inside the automatic transmission assembly.	—	—
B20A	Brake Fluid Level Indicator Switch	—	In the left rear of the engine compartment, mounted to the bottom left side of the master cylinder reservoir.	*Engine Compartment Components - Left*	*B20A Brake Fluid Level Indicator Switch*
B22	Brake Pedal Position Sensor	—	In the passenger compartment, under the left side of the instrument panel, attached to the top of the brake pedal assembly.	*Passenger Compartment - Left Front*	*B22 Brake Pedal Position Sensor*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B23E	Camshaft Position Sensor - Exhaust	—	In the engine compartment, at the rear of the engine, mounted to the right rear of the camshaft carrier.	*Engine Components - Right Front*	*B23E Camshaft Position Sensor - Exhaust*
B23F	Camshaft Position Sensor - Intake	—	In the engine compartment, at the rear of the engine, mounted to the left rear of the camshaft carrier.	*Engine Components - Left Front*	*B23F Camshaft Position Sensor - Intake*
B24	Mobile Telephone Microphone	—	In the passenger compartment, on the front center of the headliner, in the left side of the overhead console.	• *Headliner Components (- CAC)* • *Headliner Components (CAC)*	*B24 Mobile Telephone Microphone*
B26	Crankshaft Position Sensor	—	In the engine compartment, left rear, mounted to rear of engine block. Below M64 Starter Motor.	*Engine Components - Left Front*	*B26 Crankshaft Position Sensor*
B27LF	Front Side Door Outside Handle Switch - Left	—	Outside the vehicle, on the left front door, part of the door handle assembly - driver exterior.	—	—
B27RF	Front Side Door Outside Handle Switch - Right	—	Outside the vehicle, on the left front door, part of the door handle assembly - passenger exterior.	—	—
B34A	Engine Coolant Temperature Sensor 1	—	Outside of the vehicle, In the engine compartment, left side of engine block, attached to the front of Q97 Engine Coolant Flow Control Valve.	*Engine Components - Left Front*	*B34A Engine Coolant Temperature Sensor 1*
B34B	Engine Coolant Temperature Sensor 2	—	Outside of the vehicle, In the engine compartment, right front, attached to the coolant pipe above the G59 Engine Coolant Pump.	*Engine Components - Right Front*	*B34B Engine Coolant Temperature Sensor 2*
B34E	Engine Coolant Temperature Sensor 5	—	Outside of the vehicle, In the engine compartment, right front, attached to the coolant pipe above the G59 Engine Coolant Pump.	*Engine Components - Right Front*	*B34E Engine Coolant Temperature Sensor 5*
B34F	Engine Coolant Temperature Sensor 6	—	Outside of the vehicle, In the engine compartment, attached to the left side of the engine block, in front of Q97 Engine Coolant Flow Control Valve.	*Engine Components - Left Rear*	*B34F Engine Coolant Temperature Sensor 6*
B36	Engine Oil Temperature Sensor	—	In the engine compartment, right side, mounted to the engine oil filter housing.	*Engine Components - Right Front*	*B36 Engine Oil Temperature Sensor*
B37B	Engine Oil Pressure Sensor	—	Outside of the vehicle, In the engine compartment, front center, mounted to the right side of the engine block, near the accessory belt drive	*Engine Components - Right Front*	*B37B Engine Oil Pressure Sensor*
B39	Air Conditioning Evaporator Air Temperature Sensor	—	In the passenger compartment, behind the instrument panel, mounted in the HVAC housing.	*HVAC Components*	*B39 Air Conditioning Evaporator Air Temperature Sensor*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B46	Fuel Level Sensor	—	Under the vehicle, inside the fuel tank, part of the fuel pump and level sensor assembly.	—	—
B47	Fuel Pressure Sensor	—	Under the vehicle, at top of the fuel tank.	Fuel Tank and Emission Components	B47 Fuel Pressure Sensor
B52A	Heated Oxygen Sensor 1	—	In the engine compartment, right rear of the engine, mounted in the bank 1 exhaust, upstream of the catalytic converter.	Engine Components - Right Front	B52A Heated Oxygen Sensor 1
B52B	Heated Oxygen Sensor 2	—	Under the vehicle, right rear of the engine, mounted in the bank 1 exhaust, downstream of the catalytic converter.	Engine Components - Right Front	B52B Heated Oxygen Sensor 2
B55	Engine Compartment Cover Switch	—	Outside the vehicle, at the front center of the hood latch.	Engine Compartment Components - Top	B55 Engine Compartment Cover Switch
B58L	Airbag Front End Discriminating Sensor - Left	—	Outside the vehicle, In the engine compartment, left front, at the bottom of the radiator core support.	Engine Compartment Components - Top	B58L Airbag Front End Discriminating Sensor - Left
B58R	Airbag Front End Discriminating Sensor - Right	—	Outside the vehicle, In the engine compartment, right front, at the bottom of the radiator core support.	Engine Compartment Components - Top	B58R Airbag Front End Discriminating Sensor - Right
B61P	Seat Belt Tension Sensor - Passenger	—	In the passenger compartment, at the base of the B-pillar, part of the passenger seat belt retractor pretensioner	Passenger Compartment - Right Rear	B61P Seat Belt Tension Sensor - Passenger
B63LF	Airbag Side Impact Sensor - Left Front Door	—	In the driver door, mounted to door structure, at the bottom, between the window motor and door latch.	Driver Door Components	B63LF Airbag Side Impact Sensor - Left Front Door
B63LRG	Airbag Side Impact Rear Sensor - Left	—	In the passenger compartment, left rear, mounted to lower C-pillar, behind trim.	Passenger Compartment - Left Rear	B63LRG Airbag Side Impact Rear Sensor - Left
B63RF	Airbag Side Impact Sensor - Right Front Door	—	In the passenger door, mounted to door structure, at the bottom, between the window motor and door latch.	Passenger Door Components	B63RF Airbag Side Impact Sensor - Right Front Door
B63RRG	Airbag Side Impact Rear Sensor - Right	—	In the passenger compartment, right rear, mounted to lower C-pillar, behind trim.	Passenger Compartment - Right Rear	B63RRG Airbag Side Impact Rear Sensor - Right
B65	Manifold Absolute Pressure and Intake Air Temperature Sensor	—	Outside of the vehicle, In the engine compartment, left front of the engine mounted on the intake manifold.	Engine Components - Left Front	B65 Manifold Absolute Pressure and Intake Air Temperature Sensor
B68A	Knock Sensor 1	—	Outside of the vehicle, In the engine compartment, left side of engine, mounted to the front of the engine block, below Q17A Fuel Injector 1 and Q17B Fuel Injector 2	Engine Components - Left Front	B68A Knock Sensor 1

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B68B	Knock Sensor 2	—	In the engine compartment, left side of engine, mounted to the front of the block, below Q17C Fuel Injector 3and Q17D Fuel Injector 4	*Engine Components - Left Front*	*B68B Knock Sensor 2*
B75	Mass Airflow Sensor	—	In the right side of the engine compartment, attached to the upper side of the air cleaner assembly.	*Engine Compartment Components - Right*	*B75 Mass Airflow Sensor*
B81B	Automatic Transmission Control Park Position Switch	—	In the passenger compartment, part of the automatic transmission shifter, at the base of the shift lever.	—	—
B87	Rearview Driver Information Camera	—	Outside the vehicle, at the top middle of the tailgate, mounted in the tailgate handle.	• *Endgate Components* • *Rear of Vehicle Components*	• *B87 Rearview Driver Information Camera (UV2)* • *B87 Rearview Driver Information Camera (UVB)*
B88D	Seat Belt Switch - Driver	—	In the passenger compartment, at the inboard side of the driver seat, part of the seat belt buckle.	*Driver Seat Components*	*B88D Seat Belt Switch - Driver*
B88LR	Seat Belt Switch - Left Rear	—	In the passenger compartment, left side rear, next to left rear seat, part of the seat buckle	—	—
B88P	Seat Belt Switch - Passenger	—	In the passenger compartment, at the inboard side of the passenger seat, part of the seat belt buckle.	*Passenger Seat Components*	*B88P Seat Belt Switch - Passenger*
B88RMB	Seat Belt Sensor - Rear Middle	—	In the passenger compartment, center rear, next to center rear seat, part of the seat buckle	—	—
B88RR	Seat Belt Switch - Right Rear	—	In the passenger compartment, right side rear, next to right rear seat, part of the seat buckle	—	—
B107	Accelerator Pedal Position Sensor	—	In the passenger compartment, front driver side, in the accelerator pedal assembly, mounted to bulkhead.	*Passenger Compartment - Left Front*	*B107 Accelerator Pedal Position Sensor*
B110	Battery Monitor Module	—	Outside of the vehicle, In the engine compartment, right side, near C1 Battery negative cable.	—	• *B110 Battery Monitor Module X1* • *B110 Battery Monitor Module X2*
B111	Turbocharger/ Supercharger Boost Pressure Sensor	—	Outside of the vehicle, In the engine compartment, left front, mounted to the top left side of the intercooler.	*Engine Compartment Components - Top*	*B111 Turbocharger/ Supercharger Boost Pressure Sensor*
B118	Windshield Washer Solvent Container Level Sensor	—	At Right front corner of vehicle, behind front fender, mounted to right side middle of windshield washer solvent container.	—	*B118 Windshield Washer Solvent Container Level Sensor*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B137B	Power Steering Shaft Torque/Position Sensor	—	Under the vehicle, in the engine compartment, on the power steering rack.	—	B137B Power Steering Shaft Torque/Position Sensor
B139	Transfer Case Two/Four Wheel Drive Actuator Position Sensor	—	Under the vehicle, mounted to the transfer case.	Engine Components - Left Rear	B139 Transfer Case Two/Four Wheel Drive Actuator Position Sensor (NP0 / NQH)
B150	Fuel Tank Pressure Sensor	—	Under the vehicle, at the top of the fuel tank.	Fuel Tank and Emission Components	B150 Fuel Tank Pressure Sensor
B153D	Front Seat Belt Buckle - Driver	—	In the passenger compartment, at the inboard side of the drive seat.	—	—
B153LR	Rear Seat Belt Buckle - Left	—	In the passenger compartment, left side rear, next to left rear seat.	—	—
B153P	Front Seat Belt Buckle - Passenger	—	In the passenger compartment, at the inboard side of the passenger seat.	—	—
B153RM	Rear Center Seat Belt Buckle	—	In the passenger compartment, center rear, next to center rear seat.	—	—
B153RR	Rear Seat Belt Buckle - Right	—	In the passenger compartment, right side rear, next to right rear seat.	—	—
B160	Inside Air Moisture and Windshield Temperature Sensor	—	In the passenger compartment, at the top center of the windshield.	• Headliner Components (- CAC) • Headliner Components (CAC)	B160 Inside Air Moisture and Windshield Temperature Sensor
B172LF	Front Disc Brake Pad Wear Sensor - Left	—	Under the vehicle, at left front caliper.	Left Front Wheelhouse Components	B172LF Front Disc Brake Pad Wear Sensor - Left
B172LR	Rear Disc Brake Pad Wear Sensor - Left	—	Under the vehicle, at left rear caliper.	Left Rear Wheelhouse Components	B172LR Rear Disc Brake Pad Wear Sensor - Left
B174G	Front View Driver Information Camera - Grille	—	At the front of the vehicle, front center, near the grille.	Front of Vehicle Components	B174G Front View Driver Information Camera - Grille
B174W	Front View Camera - Windshield	—	In the passenger compartment, at the top middle of the windshield.	• Headliner Components (- CAC) • Headliner Components (CAC)	B174W Front View Camera - Windshield
B203	Radiator Coolant Temperature Sensor	—	In the engine compartment, right front, attached to the right side of the radiator.	Radiator Support Components	B203 Radiator Coolant Temperature Sensor
B218L	Side Obstacle Detection Control Module - Left	UFB/UKI	Outside of the vehicle, left rear corner, mounted to the inside of the rear bumper.	Rear Bumper - Inside	B218L Side Obstacle Detection Control Module - Left (UFB / UKI)
B218R	Side Obstacle Detection Control Module - Right	UFB/UKI	Outside of the vehicle, right rear corner, mounted to the inside of the rear bumper.	Rear Bumper - Inside	B218R Side Obstacle Detection Control Module - Right (UFB / UKI)
B225L	Side View Driver Information Camera - Left	—	Outside of vehicle, left side, within A9A Outside Rearview Mirror - Driver.	—	—
B225R	Side View Driver Information Camera - Right	—	Outside of vehicle, right side, within A9B Outside Rearview Mirror - Passenger.	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B306E	Parking Assist Alarm Sensor - Rear Left Outer	UD7	Outside of the vehicle, at the rear left side, mounted in the rear bumper.	Rear of Vehicle Components	B306E Parking Assist Alarm Sensor - Rear Left Outer (UD7)
B306F	Parking Assist Alarm Sensor - Rear Left Middle	UD7	Outside of the vehicle, at the rear left of center, mounted in the rear bumper.	Rear of Vehicle Components	B306F Parking Assist Alarm Sensor - Rear Left Middle (UD7)
B306G	Parking Assist Alarm Sensor - Rear Right Middle	UD7	Outside of the vehicle, at the rear right of middle, mounted in the rear bumper.	Rear of Vehicle Components	B306G Parking Assist Alarm Sensor - Rear Right Middle (UD7)
B306H	Parking Assist Alarm Sensor - Rear Right Outer	UD7	Outside of the vehicle, at the rear right side, in the rear bumper.	Rear of Vehicle Components	B306H Parking Assist Alarm Sensor - Rear Right Outer (UD7)
B310	Fuel Pressure and Temperature Sensor	—	Outside of the vehicle, In the engine compartment, left front side of the engine, on the fuel rail.	Engine Components - Left Front	B310 Fuel Pressure and Temperature Sensor
B321	Crankcase Pressure Sensor	—	Outside of the vehicle, In the engine compartment, rear center, mounted to the top side of the valve cover.	Engine Components - Right Front	B321 Crankcase Pressure Sensor
B338A	Intake Camshaft Profile Sleeve Position Sensor 1	—	Outside of the vehicle, In the engine compartment, center, mounted to camshaft carrier, left of M129A Intake Camshaft Profile Actuator 1.	Engine Components - Left Front	B338A Intake Camshaft Profile Sleeve Position Sensor 1
B338B	Intake Camshaft Profile Sleeve Position Sensor 2	—	Outside of the vehicle, In the engine compartment, center, mounted to camshaft carrier, left of M129D Intake Camshaft Profile Actuator 4.	Engine Components - Left Front	B338B Intake Camshaft Profile Sleeve Position Sensor 2
B339A	Exhaust Camshaft Profile Sleeve Position Sensor 1	—	Outside of the vehicle, In the engine compartment, center, mounted to the right side of the camshaft carrier.	Engine Components - Right Front	B339A Exhaust Camshaft Profile Sleeve Position Sensor 1
B339B	Exhaust Camshaft Profile Sleeve Position Sensor 2	—	Outside of the vehicle, In the engine compartment, center, mounted to the right side of the camshaft carrier.	Engine Components - Right Front	B339B Exhaust Camshaft Profile Sleeve Position Sensor 2
B355	Communication Interface Module Microphone	—	Outside of the vehicle, In the passenger compartment, on the front center of the headliner, in the right side of the overhead console.	• Headliner Components (- CAC) • Headliner Components (CAC)	B355 Communication Interface Module Microphone
B384	Rearview Underbody Camera	UXA	Under the vehicle, below front powertrain, at rear opening in skid plate.	Center Underbody Components	B384 Rearview Underbody Camera (UXA)
B385	Front View Underbody Camera	UXA	Under the vehicle, below front powertrain, at front opening in skid plate.	Center Underbody Components	B385 Front View Underbody Camera (UXA)
C1	Battery	—	Outside of the vehicle, In the engine compartment, right rear.	—	—
E2LFW	Front Side Marker Lamp - Left Wheel Opening Molding	—	Outside of the vehicle, Mounted within left front fender, mounted in center.	Front of Vehicle Components	E2LFW Front Side Marker Lamp - Left Wheel Opening Molding (Z88)

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
E2LRW	Rear Side Marker Lamp - Left Wheel Opening Molding	—	Outside of the vehicle, Mounted within right front fender, mounted in center.	*Left Rear Wheelhouse Components*	*E2LRW Rear Side Marker Lamp - Left Wheel Opening Molding (Z88)*
E2RFW	Front Side Marker Lamp - Right Wheel Opening Molding	—	Outside of the vehicle, Mounted within rear fender, left rear center.	*Front of Vehicle Components*	*E2RFW Front Side Marker Lamp - Right Wheel Opening Molding (Z88)*
E2RRW	Rear Side Marker Lamp - Right Wheel Opening Molding	—	Outside of the vehicle, Mounted within rear fender, right rear center.	*Right Rear Wheelhouse Components*	—
E5A	Backup Bulb - Left	—	At the rear of vehicle, left rear corner, within E42L Rear Body Structure Stop Lamp - Left.	*Rear of Vehicle Components*	—
E5B	Backup Bulb - Right	—	At the rear of vehicle, right rear corner, within E42R Rear Body Structure Stop Lamp - Right.	*Rear of Vehicle Components*	—
E6	High Mount Stop Lamp	—	Outside the vehicle, at the top center of the rear window bridge.	*Rear of Vehicle Components*	*E6 High Mount Stop Lamp*
E7L	Rear License Plate Lamp - Left	—	Outside the vehicle, mounted in the middle of the rear bumper.	*Rear of Vehicle Components*	*E7L Rear License Plate Lamp - Left*
E7R	Rear License Plate Lamp - Right	—	Outside the vehicle, mounted in the middle of the rear bumper.	*Rear of Vehicle Components*	*E7R Rear License Plate Lamp - Right*
E13LA	Front Headlamp - Left	—	Outside the vehicle, at the left front corner.	*Front of Vehicle Components*	*E13LA Front Headlamp - Left*
E13RA	Front Headlamp - Right	—	Outside the vehicle, at the right front corner.	*Front of Vehicle Components*	*E13RA Front Headlamp - Right*
E14A	Front Seat Back Heater - Driver	KA1	In the passenger compartment, in the driver seat back.	*Driver Seat Components*	*E14A Front Seat Back Heater - Driver (KA1)*
E14B	Front Seat Cushion Heater - Driver	KA1	In the passenger compartment, in the driver seat cushion.	*Driver Seat Components*	*E14B Front Seat Cushion Heater - Driver (KA1)*
E14C	Front Seat Back Heater - Passenger	KA1	In the passenger compartment, in the passenger seat back.	*Passenger Seat Components*	*E14C Front Seat Back Heater - Passenger (KA1)*
E14D	Front Seat Cushion Heater - Passenger	KA1	In the passenger compartment, in the passenger seat cushion.	*Passenger Seat Components*	*E14D Front Seat Cushion Heater - Passenger (KA1)*
E15	Steering Wheel Heater	—	In the passenger compartment, left front, part of the steering wheel.	—	—
E17D	Outside Rearview Mirror Glass - Driver	—	Outside the vehicle, at the front of the driver door, part of A9A Outside Rearview Mirror - Driver.	—	—
E17P	Outside Rearview Mirror Glass - Passenger	—	Outside the vehicle, at the front of the passenger door, part of A9B Outside Rearview Mirror - Passenger.	—	—
E18	Rear Window Defogger Grid	C49	At the rear of the passenger compartment, part of the rear window glass.	*Passenger Compartment - Right Rear*	• *E18 Rear Window Defogger Grid X1* • *E18 Rear Window Defogger Grid X2*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
E29LF	Front Fog Lamp - Left	T40	Outside the vehicle, at the left front corner, in the front bumper, below E13LA Front Headlamp - Left.	*Front of Vehicle Components*	*E29LF Front Fog Lamp - Left*
E29RF	Front Fog Lamp - Right	T40	Outside the vehicle, at the right front corner, in the front bumper, below E13RA Front Headlamp - Right.	*Front of Vehicle Components*	*E29RF Front Fog Lamp - Right*
E31L	Sunshade Mirror Lamp - Left	DEG	In the passenger compartment, at the left front of the headliner, part of A3L Sunshade - Left.	• *Headliner Components (- CAC)* • *Headliner Components (CAC)*	—
E31R	Sunshade Mirror Lamp - Right	DEG	In the passenger compartment, at the right front of the headliner, part of A3R Sunshade - Right.	• *Headliner Components (- CAC)* • *Headliner Components (CAC)*	—
E33L	Cargo Lamp - Left	—	Outside the vehicle, at the top center of the rear window bridge, within E6A High Mount Stop and Cargo Lamp.	—	*E33L Cargo Lamp - Left (S0Y)*
E33R	Cargo Lamp - Right	—	Outside the vehicle, at the top center of the rear window bridge, within E6A High Mount Stop and Cargo Lamp.	—	*E33R Cargo Lamp - Right (S0Y)*
E42L	Rear Body Structure Stop Lamp - Left	—	Outside the vehicle, at the left rear corner of the cargo box.	*Rear of Vehicle Components*	*E42L Rear Body Structure Stop Lamp - Left*
E42R	Rear Body Structure Stop Lamp - Right	—	Outside the vehicle, at the right rear corner of the cargo box.	*Rear of Vehicle Components*	*E42R Rear Body Structure Stop Lamp - Right*
E97	Rear Seat Position Center Courtesy Lamp	—	In the passenger compartment, rear center, mounted to headliner.	• *Headliner Components (- CAC)* • *Headliner Components (CAC)*	*E97 Rear Seat Position Center Courtesy Lamp*
F101	Instrument Panel Airbag	—	In the passenger compartment, behind the instrument panel upper glove box.	*Instrument Panel - Rear*	*F101 Instrument Panel Airbag*
F105L	Front and Rear Row Roof Rail Airbag - Left	—	In the passenger compartment, along the left side of the headliner.	*Passenger Compartment - Left Rear*	*F105L Front and Rear Row Roof Rail Airbag - Left*
F105R	Front and Rear Row Roof Rail Airbag - Right	—	In the passenger compartment, along the right side of the headliner.	*Passenger Compartment - Right Rear*	*F105R Front and Rear Row Roof Rail Airbag - Right*
F106D	Front Seat Outboard Seat Back Airbag - Driver	—	In the passenger compartment, in the outboard side of the driver seat back.	*Driver Seat Components*	*F106D Front Seat Outboard Seat Back Airbag - Driver*
F106P	Front Seat Outboard Seat Back Airbag - Passenger	—	In the passenger compartment, in the outboard side of the passenger seat back.	*Passenger Seat Components*	*F106P Front Seat Outboard Seat Back Airbag - Passenger*
F107	Steering Wheel Airbag	—	In the passenger compartment, mounted to the middle of the steering wheel.	*Steering Wheel Components*	*F107 Steering Wheel Airbag*
F112D	Front Seat Belt Retractor - Driver	—	In the passenger compartment, at the base of the driver side B-pillar.	*Passenger Compartment - Left Rear*	*F112D Front Seat Belt Retractor - Driver*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
F112P	Front Seat Belt Retractor - Passenger	—	In the passenger compartment, at the base of the passenger side B-pillar.	Passenger Compartment - Right Rear	F112P Front Seat Belt Retractor - Passenger
F113D	Front Seat Belt Anchor Plate Tensioner - Driver	—	In the passenger compartment, mounted to the outboard driver seat track.	Passenger Compartment - Left Rear	F113D Front Seat Belt Anchor Plate Tensioner - Driver (AEO)
F113P	Front Seat Belt Anchor Plate Tensioner - Passenger	—	In the passenger compartment, mounted to the outboard passenger seat track.	Passenger Compartment - Right Rear	F113P Front Seat Belt Anchor Plate Tensioner - Passenger (AEO)
G1	Air Conditioning Compressor	—	In the engine compartment, left front, mounted to the left lower side of the engine.	Engine Components - Left Front	—
G5	Automatic Transmission Auxiliary Fluid Pump	—	Under the vehicle, within T12 Automatic Transmission.	—	G5 Automatic Transmission Auxiliary Fluid Pump
G10L	Cooling Fan Motor - Left	—	In the engine compartment, in the radiator shroud, left side.	Radiator Support Components	G10L Cooling Fan Motor - Left
G10LW	Cooling Fan Motor - Lower	Z82	In the engine compartment, in the radiator shroud, beneath the left and right cooling fan motors.	Radiator Support Components	G10LW Cooling Fan Motor - Lower (Z82)
G10R	Cooling Fan Motor - Right	—	In the engine compartment, in the radiator shroud, right side.	Radiator Support Components	G10R Cooling Fan Motor - Right
G12	Fuel Pump	—	Under the vehicle, within the fuel tank, part of A7 Fuel Tank Fuel Pump Module.	—	—
G13	Generator	—	In the engine compartment, left front, mounted to the left upper side of the engine.	Engine Components - Left Front	• G13 Generator X1 • G13 Generator X2
G18	Fuel Pump - High Pressure	—	In the engine compartment, rear center, mounted on top of the rear of the camshaft carrier.	Engine Components - Right Front	G18 Fuel Pump - High Pressure
G24	Windshield Washer Pump	—	At Right front corner of vehicle, behind front fender, mounted to right side middle of windshield washer solvent container.	—	G24 Windshield Washer Pump
G58	Evaporative Emission Canister Purge Pump	—	In the engine compartment, center, mounted above the intake manifold, to the left of the camshaft carrier.	Engine Components - Left Front	G58 Evaporative Emission Canister Purge Pump
G59	Engine Coolant Pump	—	In the engine compartment, right front, beneath turbocharger.	Engine Components - Right Front	G59 Engine Coolant Pump

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
K9	Body Control Module	—	In the passenger compartment, behind the driver side of the instrument panel, outboard of the steering column.	• Instrument Panel - Rear • Passenger Compartment - Left Front	• K9 Body Control Module X1 • K9 Body Control Module X2 • K9 Body Control Module X3 • K9 Body Control Module X4 • K9 Body Control Module X5 • K9 Body Control Module X6 • K9 Body Control Module X7 • K9 Body Control Module X8
K20	Engine Control Module	—	In the engine compartment, Right side, Behind the X50B Battery Distribution Engine Compartment Fuse Block.	—	• K20 Engine Control Module X1 • K20 Engine Control Module X2 • K20 Engine Control Module X3
K29FV	Front Seat Heater Vent Control Module	KA1	In the passenger compartment, right front, under the passenger seat cushion.	Passenger Seat Components	• K29FV Front Seat Heater Vent Control Module X1 (KA1) • K29FV Front Seat Heater Vent Control Module X2 (KA1)
K32	Heated Steering Wheel Module	—	In the passenger compartment, in the steering wheel, behind the driver air bag.	Steering Wheel Components	• K32 Heated Steering Wheel Module X1 (KI3) • K32 Heated Steering Wheel Module X2 (KI3)
K36	Restraints Control Module	—	In the passenger compartment, bolted to the floor between the front seats or under console.	• Floor Console Components • Passenger Compartment - Right Rear	• K36 Restraints Control Module X1 • K36 Restraints Control Module X2
K38	Chassis Control Module	—	Under the vehicle, mounted to the bracket above the spare tire.	Rear Underbody Components	K38 Chassis Control Module
K40D	Driver Seat Adjuster Memory Module	A45	In the passenger compartment, left front, mounted to the driver seat, beneath the front of the driver seat cushion.	Driver Seat Components	• K40D Driver Seat Adjuster Memory Module X1 (A45) • K40D Driver Seat Adjuster Memory Module X2 (A45) • K40D Driver Seat Adjuster Memory Module X3 (A45)

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
K43	Power Steering Control Module	—	In the engine compartment, bottom rear, mounted to steering gear.	—	• *K43 Power Steering Control Module X1* • *K43 Power Steering Control Module X2* • *K43 Power Steering Control Module X3*
K56	Serial Data Gateway Module	—	In the passenger compartment, behind the instrument panel, center upper.	*Instrument Panel - Rear*	• *K56 Serial Data Gateway Module X1* • *K56 Serial Data Gateway Module X2* • *K56 Serial Data Gateway Module X3*
K61	Sunroof Control Module	—	In the passenger compartment, front center, above headliner, rear of A103 Roof Console, forward of sunroof.	*Headliner Components (CAC)*	*K61 Sunroof Control Module (CAC)*
K67	Trailer Brake Control Module	JL1+Z82	Under the vehicle, mounted to the bracket above the spare tire.	*Rear Underbody Components*	*K67 Trailer Brake Control Module (JL1 & Z82)*
K68	Trailer Lamp Control Module	U1D+Z82	Under the vehicle, mounted to the bracket above the spare tire.	*Rear Underbody Components*	*K68 Trailer Lamp Control Module (U1D & Z82)*
K69	Transfer Case Control Module	NP0/NQH	Outside the vehicle, left front, under the air cleaner assembly.	*Engine Compartment Components - Right*	*K69 Transfer Case Control Module*
K71	Transmission Control Module	—	In the engine compartment, Right side, Behind the X50B Battery Distribution Engine Compartment Fuse Block.	• *Engine Compartment Components - Right* • *Engine Compartment Components - Right*	*K71 Transmission Control Module*
K73	Telematic Control Module	—	In the passenger compartment, Rear, bolted to the Cab under the back glass.	*Passenger Compartment - Left Rear*	• *K73 Telematic Control Module X1* • *K73 Telematic Control Module X2* • *K73 Telematic Control Module X3* • *K73 Telematic Control Module X7*
K77	Remote Function Actuator Module	—	In the passenger compartment, center, below headliner.	• *Headliner Components (- CAC)* • *Headliner Components (CAC)*	*K77 Remote Function Actuator Module*
K85P	Restraints Occupant Classification System Module - Passenger	—	In the passenger compartment, right front, mounted to the passenger seat, beneath the front of the right front seat cushion.	*Passenger Seat Components*	*K85P Restraints Occupant Classification System Module - Passenger*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
K111	Fuel Pump Power Control Module	—	Under the vehicle, mounted to the bracket above the spare tire.	Rear Underbody Components	K111 Fuel Pump Power Control Module
K157	Video Processing Module	UV2/UXA-UVB	In the passenger compartment, behind the driver side of the instrument panel, outboard of the steering column.	• Instrument Panel - Rear • Passenger Compartment - Left Front	• K157 Video Processing Module X1 ((UV2 / UXA) - UVB) • K157 Video Processing Module X2 ((UV2 / UXA) - UVB) • K157 Video Processing Module X3 (UXA) • K157 Video Processing Module X4 (UV2 - (UVB & UXA)) • K157 Video Processing Module X4 (UXA) • K157 Video Processing Module X5 (UV2 - (UVB & UXA)) • K157 Video Processing Module X5 (UXA) • K157 Video Processing Module X6 • K157 Video Processing Module X7
K160	Brake System Control Module	—	Outside the vehicle, in the engine compartment, left rear corner, near brake master cylinder.	Engine Compartment Components - Left	K160 Brake System Control Module
K174L	Rear Body Structure Stop Lamp LED Driver Module - Left	—	Outside the vehicle, at the left rear corner of the cargo box, mounted to the E42L Rear Body Structure Stop Lamp - Left	Rear of Vehicle Components	—
K174R	Rear Body Structure Stop Lamp LED Driver Module - Right	CJ2	Outside the vehicle, at the right rear corner of the cargo box, mounted to the E42R Rear Body Structure Stop Lamp - Right	Rear of Vehicle Components	K174R Rear Body Structure Stop Lamp LED Driver Module - Right
K182	Parking Assist Control Module	—	In the passenger compartment, right side, under and to the left of the F101 Instrument Panel Airbag	Instrument Panel - Rear	• K182 Parking Assist Control Module X1 (UD7) • K182 Parking Assist Control Module X2 (UD7)

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
K219	Lighting Control Module	—	In the passenger compartment, left side, mounted in bracket to the left side kick panel.	*Passenger Compartment - Left Front*	- *K219 Lighting Control Module X1* - *K219 Lighting Control Module X2* - *K219 Lighting Control Module X3* - *K219 Lighting Control Module X4* - *K219 Lighting Control Module X5*
K221L	Headlamp LED Driver Module - Left	—	At the left front of the vehicle, mounted to the rear of E13LA Front Headlamp - Left	—	—
K221R	Headlamp LED Driver Module - Right	—	At the right front of the vehicle, mounted to the rear of E13RA Front Headlamp - Right	—	—
M4P	Programmable Air Inlet Valve Actuator	—	In the passenger compartment, within the instrument panel, right of center, behind front floor console extension panel, mounted to the left side of the M8 Blower Motor	*HVAC Components*	*M4P Programmable Air Inlet Valve Actuator*
M6PL	Programmable Temperature Valve Actuator - Left	—	In the passenger compartment, within the instrument panel, right of center, behind front floor console extension panel, mounted to the right side of the HVAC assembly	*HVAC Components*	*M6PL Programmable Temperature Valve Actuator - Left*
M6PR	Programmable Temperature Valve Actuator - Right	—	In the passenger compartment, within the instrument panel, right of center, behind front floor console extension panel, mounted to the right side of the HVAC assembly	*HVAC Components*	*M6PR Programmable Temperature Valve Actuator - Right*
M7	Automatic Transmission Shift Lock Control Solenoid	—	In the passenger compartment, center near front, within the floor console.	—	—
M8	Blower Motor	—	In the passenger compartment, under the right side of the instrument panel, above the hush panel	*HVAC Components*	*M8 Blower Motor*
M26	Front Drive Axle Actuator	NP0/NGH	Under the vehicle, mounted to the front axle	—	*M26 Front Drive Axle Actuator (NP0 / NQH)*
M37P	Programmable Mode Valve Actuator	—	In the passenger compartment, within the instrument panel, right of center, behind front floor console extension panel, mounted to the right side of the HVAC assembly	*HVAC Components*	*M37P Programmable Mode Valve Actuator*
M38	Power Steering Assist Motor	—	Under the vehicle, part of the steering gear assembly	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
M50D	Front Seat Tilt Adjuster Actuator - Driver	A45/A2X	In the driver seat, mounted to front outboard corner of seat track.	*Driver Seat Components*	*M50D Front Seat Tilt Adjuster Actuator - Driver (A45 / A2X)*
M51D	Front Seat Adjuster Actuator - Driver	A45/A2X	In the driver seat, mounted to seat track near center.	*Driver Seat Components*	*M51D Front Seat Adjuster Actuator - Driver (A45 / A2X)*
M51P	Front Seat Adjuster Actuator - Passenger	A7J	In the passenger seat, mounted to seat track near center.	*Passenger Seat Components*	*M51P Front Seat Adjuster Actuator - Passenger*
M53D	Front Seat Back Lumbar Motor - Driver	AL9	In the passenger compartment, in the center of the driver seat back.	*Driver Seat Components*	*M53D Front Seat Back Lumbar Motor - Driver (AL9)*
M53P	Front Seat Back Lumbar Motor - Passenger	A7J	In the passenger compartment, right front, mounted inside of the passenger seat back.	*Passenger Seat Components*	*M53P Front Seat Back Lumbar Motor - Passenger*
M55D	Front Seat Vertical Adjuster Actuator - Driver	AT9	In the passenger compartment, under the driver seat.	*Driver Seat Components*	*M55D Front Seat Vertical Adjuster Actuator - Driver*
M55P	Front Seat Vertical Adjuster Actuator - Passenger	A7J	In the passenger compartment, under the passenger seat.	*Passenger Seat Components*	*M55P Front Seat Vertical Adjuster Actuator - Passenger*
M56D	Front Seat Recliner Actuator - Driver	A45/A2X	In the passenger compartment, in the driver seat back.	*Driver Seat Components*	*M56D Front Seat Recliner Actuator - Driver (A45 / A2X)*
M56P	Front Seat Recliner Actuator - Passenger	A7J	In the passenger compartment, in the passenger seat back.	*Passenger Seat Components*	*M56P Front Seat Recliner Actuator - Passenger*
M64	Starter	—	In the engine compartment, left rear, mounted to rear of engine block.	*Engine Components - Left Front*	• *M64 Starter X1* • *M64 Starter X2*
M73A	Front Seat Back Ventilation Blower - Driver	KU9	In the passenger compartment, in the driver seat back.	*Driver Seat Components*	*M73A Front Seat Back Ventilation Blower - Driver (KU9)*
M73B	Front Seat Back Ventilation Blower - Passenger	KU9	In the passenger compartment, in the passenger seat back.	*Passenger Seat Components*	*M73B Front Seat Back Ventilation Blower - Passenger (KU9)*
M73D	Front Seat Cushion Ventilation Blower - Driver	KU9	In the driver seat, mounted to seat track near center.	*Driver Seat Components*	*M73D Front Seat Cushion Ventilation Blower - Driver (KU9)*
M73P	Front Seat Cushion Ventilation Blower - Passenger	KU9	In the passenger seat, mounted to seat track near center.	*Passenger Seat Components*	*M73P Front Seat Cushion Ventilation Blower - Passenger (KU9)*
M74D	Front Side Door Window Regulator Motor - Driver	—	In the passenger compartment, in the driver door.	*Driver Door Components*	*M74D Front Side Door Window Regulator Motor - Driver (AXG)*
M74LR	Rear Side Door Window Regulator Motor - Left	—	In the passenger compartment, in the left rear door.	*Left Rear Door Components*	*M74LR Rear Side Door Window Regulator Motor - Left*
M74P	Front Side Door Window Regulator Motor - Passenger	—	In the passenger compartment, in the passenger door.	*Passenger Door Components*	*M74P Front Side Door Window Regulator Motor - Passenger*
M74RR	Rear Side Door Window Regulator Motor - Right	—	In the passenger compartment, in the right rear door.	*Right Rear Door Components*	*M74RR Rear Side Door Window Regulator Motor - Right*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
M75	Windshield Wiper Motor	—	Outside the vehicle, at the left rear of the engine compartment, below the left lower corner of the windshield.	Engine Compartment Components - Left	M75 Windshield Wiper Motor
M77D	Outside Rearview Mirror Actuator - Driver	—	Outside the vehicle, at the front of the driver door, within the A9A Outside Rearview Mirror - Driver.	—	—
M77P	Outside Rearview Mirror Actuator - Passenger	—	Outside the vehicle, at the front of the passenger door, within the A9B Outside Rearview Mirror - Passenger.	—	—
M96	Active Grille Air Shutter Actuator	—	At the front of the vehicle, center, attached to the inside of the front grille.	—	M96 Active Grille Air Shutter Actuator
M96B	Active Grille Air Shutter Actuator 2	—	At the front of the vehicle, center, attached to the inside of the front grille.	Engine Compartment Components - Bottom	M96B Active Grille Air Shutter Actuator 2
M104L	Parking Brake Actuator - Left	—	Under the vehicle, left rear, attached to the left rear brake caliper.	Left Rear Wheelhouse Components	M104L Parking Brake Actuator - Left
M104R	Parking Brake Actuator - Right	—	Under the vehicle, right rear, attached to the right rear brake caliper.	Right Rear Wheelhouse Components	M104R Parking Brake Actuator - Right
M128	Turbocharger Wastegate Actuator	—	In the engine compartment, right side of engine, mounted to the front of the turbocharger compressor.	Engine Components - Left Front	M128 Turbocharger Wastegate Actuator
M129A	Intake Camshaft Profile Actuator 1	—	In the engine compartment, center, left of T8A Ignition Coil 1.	Engine Components - Left Front	M129A Intake Camshaft Profile Actuator 1
M129B	Intake Camshaft Profile Actuator 2	—	In the engine compartment, center, left of T8B Ignition Coil 2.	Engine Components - Left Front	M129B Intake Camshaft Profile Actuator 2
M129C	Intake Camshaft Profile Actuator 3	—	In the engine compartment, center, left of T8C Ignition Coil 3.	Engine Components - Left Front	M129C Intake Camshaft Profile Actuator 3
M129D	Intake Camshaft Profile Actuator 4	—	In the engine compartment, center, left of T8D Ignition Coil 4.	Engine Components - Left Front	M129D Intake Camshaft Profile Actuator 4
M130B	Exhaust Camshaft Profile Actuator 2	—	In the engine compartment, center, right of T8B Ignition Coil 2.	Engine Components - Right Front	M130B Exhaust Camshaft Profile Actuator 2
M130C	Exhaust Camshaft Profile Actuator 3	—	In the engine compartment, center, right of T8C Ignition Coil 3.	Engine Components - Right Front	M130C Exhaust Camshaft Profile Actuator 3
P2	Automatic Transmission Control Indicator	—	In the passenger compartment, center, near front, at top of floor console, near the shift lever.	Floor Console Components	P2 Automatic Transmission Control Indicator
P13	Horn	—	At the front of the vehicle, right side, mounted to the right front of the radiator core support.	Engine Compartment Components - Top	P13 Horn
P14	Instrument Panel Airbag Arming Status Display	—	In the passenger compartment, front center, in the overhead console.	• Headliner Components (- CAC) • Headliner Components (CAC)	P14 Instrument Panel Airbag Arming Status Display

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
P16	Instrument Panel Cluster Control Module	—	In the instrument panel, driver side, above the steering column.	Instrument Panel - Front	P16 Instrument Panel Cluster Control Module X1
P19AG	Radio Front Side Door Speaker - Left	—	In the left front door, lower front corner of door, behind door trim panel.	Driver Door Trim Components	P19AG Radio Front Side Door Speaker - Left (UQA)
P19AH	Radio Front Side Door Speaker - Right	—	In the right front door, lower front corner of door, behind door trim panel.	Passenger Door Trim Components	P19AH Radio Front Side Door Speaker - Right (UQA)
P19AL	Radio Rear Side Door Speaker - Left	—	In the left rear door, lower front corner of door, behind door trim panel.	Left Rear Door Trim Components	• P19AL Radio Rear Side Door Speaker - Left (UQ3) • P19AL Radio Rear Side Door Speaker - Left (UQA)
P19AM	Radio Rear Side Door Speaker - Right	—	In the left rear door, lower front corner of door, behind door trim panel.	Right Rear Door Trim Components	• P19AM Radio Rear Side Door Speaker - Right (UQ3) • P19AM Radio Rear Side Door Speaker - Right (UQA)
P19B	Radio Front Center Speaker	—	In the instrument panel, at center top, behind grille.	Instrument Panel - Front	P19B Radio Front Center Speaker (UQA)
P19J	Radio Front Speaker - Instrument Panel Left	—	In the instrument panel, left front, mounted to instrument panel behind grille.	Instrument Panel - Front	• P19J Radio Front Speaker - Instrument Panel Left (UQ3) • P19J Radio Front Speaker - Instrument Panel Left (UQA)
P19W	Radio Front Speaker - Instrument Panel Right	—	In the instrument panel, right front, mounted instrument panel behind grille.	Instrument Panel - Front	• P19W Radio Front Speaker - Instrument Panel Right (UQ3) • P19W Radio Front Speaker - Instrument Panel Right (UQA)
P29	Head-Up Display	UV6	In the passenger compartment, at the left side of the instrument panel, near the windshield.	• Instrument Panel - Front • Instrument Panel - Rear	P29 Head-Up Display X1 (UV6)
P34D	Side Object Detection Indicator - Driver	—	Outside of the vehicle, left side, part of E17D Outside Rearview Mirror Glass - Driver, within A9A Outside Rearview Mirror - Driver	—	—
P34P	Side Object Detection Indicator - Passenger	—	Outside of the vehicle, left side, part of E17P Outside Rearview Mirror Glass - Passenger, within A9B Outside Rearview Mirror - Passenger	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
P43	Forward Collision Alert Display	UIT-UV6	In the passenger compartment, in the top of the instrument panel, near the windshield, in front of the driver.	Instrument Panel - Front	P43 Forward Collision Alert Display (UIT - UV6)
P45L	Front Seat Lane Departure Warning Actuator - Left	HS1	In the passenger compartment, in the left side of the driver seat cushion.	Driver Seat Components	P45L Front Seat Lane Departure Warning Actuator - Left (HS1)
P45R	Front Seat Lane Departure Warning Actuator - Right	HS1	In the passenger compartment, in the right side of the driver seat cushion.	Driver Seat Components	P45R Front Seat Lane Departure Warning Actuator - Right (HS1)
P50	Regulatory Emergency Call Backup Speaker	UER	In the instrument panel, at center top, behind grille.	Instrument Panel - Front	P50 Regulatory Emergency Call Backup Speaker (UER)
Q2	Air Conditioning Clutch	—	In the engine compartment, left front, part of G1 A/C Compressor	Engine Components - Left Front	Q2 Air Conditioning Clutch
Q6E	Camshaft Position Actuator Solenoid Valve - Exhaust	—	In the engine compartment, front center, in front of exhaust camshaft	Engine Components - Left Front	Q6E Camshaft Position Actuator Solenoid Valve - Exhaust
Q6F	Camshaft Position Actuator Solenoid Valve - Intake	—	In the engine compartment, front center, in front of intake camshaft	Engine Components - Left Front	Q6F Camshaft Position Actuator Solenoid Valve - Intake
Q9F	Differential Locking Actuator - Front	G93	In the engine compartment, mounted to the front differential.	—	Q9F Differential Locking Actuator - Front (G93)
Q9R	Differential Locking Actuator - Rear	G94	Under the vehicle, rear center, mounted to the top left side of the rear differential carrier.	Left Rear Wheelhouse Components	Q9R Differential Locking Actuator - Rear
Q12	Evaporative Emission Canister Purge Solenoid Valve	—	Outside of the vehicle, right front side of the engine compartment.	Engine Compartment Components - Right	Q12 Evaporative Emission Canister Purge Solenoid Valve
Q13	Evaporative Emission Canister Vent Solenoid Valve	—	On the underbody, at the top left side, forward of the fuel tank.	Fuel Tank and Emission Components	Q13 Evaporative Emission Canister Vent Solenoid Valve
Q17A	Fuel Injector 1	—	In the engine compartment, left side of engine, mounted to cylinder head below intake manifold, near cylinder 1	Engine Components - Left Front	Q17A Fuel Injector 1
Q17B	Fuel Injector 2	—	In the engine compartment, left side of engine, mounted to cylinder head below intake manifold, near cylinder 2	Engine Components - Left Front	Q17B Fuel Injector 2
Q17C	Fuel Injector 3	—	In the engine compartment, left side of engine, mounted to cylinder head below intake manifold, near cylinder 3	Engine Components - Left Front	Q17C Fuel Injector 3
Q17D	Fuel Injector 4	—	In the engine compartment, left side of engine, mounted to cylinder head below intake manifold, near cylinder 4	Engine Components - Left Front	Q17D Fuel Injector 4

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
Q38	Throttle Body	—	In the engine compartment, at the Left front of the engine, mounted to the intake manifold inlet	*Engine Components - Left Front*	*Q38 Throttle Body*
Q40	Turbocharger Bypass Valve Solenoid	—	In the engine compartment, right side, mounted to the turbocharger compressor, beneath turbocharger compressor inlet	*Engine Components - Left Front*	*Q40 Turbocharger Bypass Valve Solenoid*
Q44	Engine Oil Pressure Control Solenoid Valve	—	In the engine compartment, rear center, within lower oil pan, left of oil filter	—	*Q44 Engine Oil Pressure Control Solenoid Valve*
Q46	Air Conditioning Compressor Solenoid Valve	—	In the engine compartment, left front, part of G1 A/C Compressor	*Engine Components - Left Front*	*Q46 Air Conditioning Compressor Solenoid Valve*
Q74	Engine Coolant Bypass Valve	—	In the engine compartment, left rear, attached to the bottom rear of Q97 Engine Coolant Flow Control Valve	*Engine Components - Left Front*	*Q74 Engine Coolant Bypass Valve*
Q77A	Transmission Control Solenoid Valve 1	—	Under the vehicle, inside the T12 Automatic Transmission	—	*Q77A Transmission Control Solenoid Valve 1*
Q77B	Transmission Control Solenoid Valve 2	—	Under the vehicle, inside the T12 Automatic Transmission	—	*Q77B Transmission Control Solenoid Valve 2*
Q77C	Transmission Control Solenoid Valve 3	—	Under the vehicle, inside the T12 Automatic Transmission	—	*Q77C Transmission Control Solenoid Valve 3*
Q77D	Transmission Control Solenoid Valve 4	—	Under the vehicle, inside the T12 Automatic Transmission	—	*Q77D Transmission Control Solenoid Valve 4*
Q77E	Transmission Control Solenoid Valve 5	—	Under the vehicle, inside the T12 Automatic Transmission	—	*Q77E Transmission Control Solenoid Valve 5*
Q77F	Transmission Control Solenoid Valve 6	—	Under the vehicle, inside the T12 Automatic Transmission	—	*Q77F Transmission Control Solenoid Valve 6*
Q77G	Transmission Control Solenoid Valve 7	—	Under the vehicle, inside the T12 Automatic Transmission	—	*Q77G Transmission Control Solenoid Valve 7*
Q77H	Transmission Control Solenoid Valve 8	—	Under the vehicle, inside the T12 Automatic Transmission	—	*Q77H Transmission Control Solenoid Valve 8*
Q77J	Transmission Control Solenoid Valve 9	—	Under the vehicle, inside the T12 Automatic Transmission	—	*Q77J Transmission Control Solenoid Valve 9*
Q97	Engine Coolant Flow Control Valve	—	In the engine compartment, attached to the Left Side of the Engine	—	—
Q97B	Engine Coolant Flow Control Valve - Block	—	In the engine compartment, left, attached to the front of Q97 Engine Coolant Flow Control Valve	*Engine Components - Left Rear*	*Q97B Engine Coolant Flow Control Valve - Block*
R6A	Terminating Resistor - High Speed Bus	—	In the passenger compartment, under the driver seat.	—	*R6A Terminating Resistor - High Speed Bus (A45 - U1D - (UFB / UKI / UKW))*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
S2	Automatic Transmission Manual Shift Shaft Position Switch	—	Underneath the vehicle, within T12 Automatic Transmission.	—	S2 Automatic Transmission Manual Shift Shaft Position Switch
S3	Automatic Transmission Control	—	In the passenger compartment, center near front, within the floor console.	• Floor Console Components • Instrument Panel - Front	S3 Automatic Transmission Control
S13D	Door Lock Switch - Driver	—	In the passenger compartment, in the driver door handle trim panel.	Driver Door Trim Components	S13D Door Lock Switch - Driver
S13P	Door Lock Switch - Passenger	—	In the passenger compartment, in the passenger door handle trim panel.	Passenger Door Trim Components	S13P Door Lock Switch - Passenger
S26	Hazard Warning Switch	—	In the passenger compartment, mounted to the instrument panel, beneath A26 HVAC Controls, right switch bank.	Instrument Panel - Front	S26 Hazard Warning Switch
S33	Steering Wheel Horn Contact	—	In the passenger compartment, in the center of the steering wheel, behind the driver side air bag.	Steering Wheel Components	S33 Steering Wheel Horn Contact
S36	Dimmer Switch	—	In the passenger compartment, left front, mounted to the left side of the instrument panel bezel, left of steering column.	Instrument Panel - Front	S36 Dimmer Switch
S38	On/Off Vehicle Switch	—	In the passenger compartment, right of the steering column, in the instrument panel.	Instrument Panel - Front	S38 On/Off Vehicle Switch
S47D	Front Seat Adjuster Memory Switch - Driver	A45	In the passenger compartment, on the driver door panel above the driver door switch assembly	Driver Door Trim Components	S47D Front Seat Adjuster Memory Switch - Driver (A45)
S51	Communication Center Call Switch	—	In the passenger compartment, front center, in the overhead console.	• Headliner Components (- CAC) • Headliner Components (CAC)	S51 Communication Center Call Switch
S64D	Front Seat Adjuster Switch - Driver	—	In the passenger compartment, mounted to the outboard side of the driver seat cushion.	Driver Seat Components	• S64D Front Seat Adjuster Switch - Driver (A2X) • S64D Front Seat Adjuster Switch - Driver (A45)
S64P	Front Seat Adjuster Switch - Passenger	A7J	In the passenger compartment, mounted to the outboard side of the passenger seat cushion.	Passenger Seat Components	S64P Front Seat Adjuster Switch - Passenger (AT9)
S65D	Front Seat Lumbar Switch - Driver	A2X	In the passenger compartment, mounted to the outboard side of the driver seat cushion.	Driver Seat Components	S65D Front Seat Lumbar Switch - Driver (AL9)
S65P	Front Seat Lumbar Switch - Passenger	AT9	In the passenger compartment, mounted to the outboard side of the passenger seat cushion.	Passenger Seat Components	S65P Front Seat Lumbar Switch - Passenger (AT9)
S70E	Radio Favorites Switch - Steering Wheel	—	In the passenger compartment, on the left rear side of the steering wheel.	Steering Wheel Components	S70E Radio Favorites Switch - Steering Wheel

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
S70F	Radio Volume Switch - Steering Wheel	—	In the passenger compartment, on the right rear side of the steering wheel.	Steering Wheel Components	S70F Radio Volume Switch - Steering Wheel
S70L	Cruise Control Switch	—	In the passenger compartment, on the left side of the steering wheel.	Steering Wheel Components	S70L Cruise Control Switch
S70R	Radio Control Switch - Steering Wheel	—	In the passenger compartment, on the right side of the steering wheel.	Steering Wheel Components	S70R Radio Control Switch - Steering Wheel
S72	Sunroof Switch	CAC	In the passenger compartment, front center, in the overhead console.	Headliner Components (CAC)	S72 Sunroof Switch (CAC)
S76	Trailer Brake Control Switch	JL1+Z82	In the passenger compartment, mounted to the left side of the instrument panel bezel, under the S36 Dimmer Switch.	Instrument Panel - Front	S76 Trailer Brake Control Switch (JL1 & Z82)
S78	Turn Signal Switch	—	In the passenger compartment, on the left side of the steering column.	• Instrument Panel - Front • Steering Wheel Components	S78 Turn Signal Switch
S79D	Front Side Door Window Control Switch - Driver	—	In the passenger compartment, on the driver door trim panel, center of the door.	Driver Door Trim Components	• S79D Front Side Door Window Control Switch - Driver X1 • S79D Front Side Door Window Control Switch - Driver X2
S79LR	Rear Side Door Window Switch - Left	—	In the passenger compartment, at the center of the left rear door, on the door trim panel.	Left Rear Door Trim Components	S79LR Rear Side Door Window Switch - Left
S79P	Front Side Door Window Switch - Passenger	—	In the passenger compartment, on the passenger door trim panel, center of the door.	Passenger Door Trim Components	• S79P Front Side Door Window Switch - Passenger X1 • S79P Front Side Door Window Switch - Passenger X2
S79RR	Rear Side Door Window Switch - Right	—	In the passenger compartment, on the right rear door trim panel, center of the door.	Right Rear Door Trim Components	S79RR Rear Side Door Window Switch - Right
S88	Sunroof Tilt Position Switch	CAC	In the passenger compartment, front center, in the overhead console.	Headliner Components (CAC)	S88 Sunroof Tilt Position Switch (CAC)
S91	Parking Brake Control Switch	—	In the passenger compartment, top center of the center console, left of the shifter.	Floor Console Components	S91 Parking Brake Control Switch
S126	Ride Control Switch	—	In the passenger compartment, top of the center console, left of the shifter.	Floor Console Components	S126 Ride Control Switch (NP0 / NQH)

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
T1	DC/AC Converter Control Module	—	In the passenger compartment, Rear, bolted to the Cab under the back glass to the right of the K73 Telematic Control Module.	*Passenger Compartment - Left Rear*	- *T1 DC/AC Converter Control Module X1* - *T1 DC/AC Converter Control Module X2 (KI6)* - *T1 DC/AC Converter Control Module X2 (KI7)*
T3	Audio Amplifier	UQA	In the passenger compartment, Rear, bolted to the Cab under the back glass to the right of the T1 DC/AC Converter Control Module.	*Passenger Compartment - Right Rear*	- *T3 Audio Amplifier X1* - *T3 Audio Amplifier X2* - *T3 Audio Amplifier X4*
T4P	High Frequency Antenna	—	Outside the vehicle, at the rear of the roof.	- *Front of Vehicle Components* - *Rear of Vehicle Components*	- *T4P High Frequency Antenna X1 (- MAM)* - *T4P High Frequency Antenna X1 (MAM)* - *T4P High Frequency Antenna X1 (U2K)* - *T4P High Frequency Antenna X2 (- U2Q - U2K)* - *T4P High Frequency Antenna X2 (U2Q)*
T4TA	Auxiliary Wireless Communication Interface Antenna	—	In the passenger compartment, behind the instrument panel, right of the K56 Serial Data Gateway Module.	*Instrument Panel - Rear*	*T4TA Auxiliary Wireless Communication Interface Antenna*
T8A	Ignition Coil 1	—	In the engine compartment, at the top of the engine, above cylinder 1	*Engine Components - Left Front*	*T8A Ignition Coil 1*
T8B	Ignition Coil 2	—	In the engine compartment, at the top of the engine, above cylinder 2	*Engine Components - Left Front*	*T8B Ignition Coil 2*
T8C	Ignition Coil 3	—	In the engine compartment, at the top of the engine, above cylinder 3	*Engine Components - Left Front*	*T8C Ignition Coil 3*
T8D	Ignition Coil 4	—	In the engine compartment, at the top of the engine, above cylinder 4	*Engine Components - Left Front*	*T8D Ignition Coil 4*
T10KA	Low Frequency Console Number 2 Antenna	—	In the passenger compartment, middle of the center console, under cup holder.	*Floor Console Components*	*T10KA Low Frequency Console Number 2 Antenna*
T10M	Low Frequency Front Side Door Outside Handle Antenna - Left	—	Outside of the vehicle, left side, within A24D Front Side Door Outside Handle - Left.	—	—
T10N	Low Frequency Front Side Door Outside Handle Antenna - Right	—	Outside of the vehicle, right side, within A24P Front Side Door Outside Handle - Right.	—	—
T10UA	Low Frequency Console Antenna	—	In the passenger compartment, back of the center console, under vents.	*Floor Console Components*	*T10UA Low Frequency Console Antenna*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
T12	Automatic Transmission	—	Under the vehicle, mounted to the rear of the engine	—	—
T19	Multifunction Power Supply Converter	—	In the passenger compartment, right rear, under right rear seat.	*Passenger Compartment - Right Rear*	*T19 Multifunction Power Supply Converter*
T22	Wireless Accessory Charging Module	K4C	In the passenger compartment, front of the center console, forward of the shifter assembly.	*Floor Console Components*	*T22 Wireless Accessory Charging Module (K4C)*
W24	Blunt Cut - Trailer Brakes Provision	—	In the passenger compartment, under left side of the instrument panel, behind kick panel.	*Instrument Panel Harness Routing*	—
W25	Blunt Cut - Configurable/Accessory Relay	—	In the passenger compartment, under right side of the instrument panel, behind kick panel.	*Instrument Panel Harness Routing*	—
W26	Blunt Cut - Cargo Lamps Provision	—	Accessory Package Component, near inline X382.	*Chassis Harness Routing - Rear*	—
X50A	Engine Wiring Harness Junction Block	—	In the engine compartment, right front, in front of C1 Battery.	*Engine Compartment Components - Right*	*Electrical Center Identification Views on page 6-26*
X50B	Battery Distribution Engine Compartment Fuse Block	—	In the engine compartment, right rear, left of the C1 Battery.	• *Engine Compartment Components - Right* • *Engine Compartment Components - Right*	*Electrical Center Identification Views on page 6-26*
X51A	Instrument Panel Wiring Harness Junction Block	—	In the passenger compartment, right side of the instrument panel, behind side trim panel.	• *Instrument Panel - Rear* • *Passenger Compartment - Right Front*	*Electrical Center Identification Views on page 6-26*
X80L	Front Floor Console Accessory Power Rear Receptacle	—	In the passenger compartment, center, mounted to the rear of the floor console.	*Floor Console Components*	*X80L Front Floor Console Accessory Power Rear Receptacle (KCA)*
X81ACA	Front Floor Console Accessory Power Rear Receptacle - 110V AC	KI6	In the passenger compartment, center, mounted to the rear of the floor console.	*Floor Console Components*	*X81ACA Front Floor Console Accessory Power Rear Receptacle - 110V AC*
X81AP	Pickup Box Accessory Power Receptacle - 110V AC	KC9	Outside of the vehicle, right rear corner of the truck bed.	*Pickup Box Components*	*X81AP Pickup Box Accessory Power Receptacle - 110V AC (KC9)*
X81BCA	Front Floor Console Accessory Power Rear Receptacle - 220V AC	KI7	In the passenger compartment, center, mounted to the rear of the floor console.	*Floor Console Components*	*X81BCA Front Floor Console Accessory Power Rear Receptacle - 220V AC*
X81BP	Pickup Box Accessory Power Receptacle - 220V AC	—	Outside of the vehicle, right rear corner of the truck bed.	—	*X81BP Pickup Box Accessory Power Receptacle - 220V AC*
X84	Data Link Connector	—	In the passenger compartment, at the bottom of the driver side of the instrument panel.	*Instrument Panel - Front*	*X84 Data Link Connector*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X85	Steering Wheel Airbag Coil	—	In the passenger compartment, behind the steering wheel.	• Instrument Panel - Front • Steering Wheel Components	• X85 Steering Wheel Airbag Coil X1 • X85 Steering Wheel Airbag Coil X2
X88B	Tow Vehicle Electrical Receptacle	U1D+Z82	At the rear of the vehicle, forward of the rear bumper fascia trailer hitch cover, to the left of the hitch.	Rear of Vehicle Components	X88B Tow Vehicle Electrical Receptacle (U1D & Z82)
X92C	Single Charge Only 2nd Row Receptacle - Floor Console Rear	—	In the passenger compartment, center, mounted to the rear of the floor console.	Floor Console Components	X92C Single Charge Only 2nd Row Receptacle - Floor Console Rear
X92G	USB 2 Port Receptacle	—	In the passenger compartment, center, mounted to the front of the floor console.	Instrument Panel - Front	• X92G USB 2 Port Receptacle X1 • X92G USB 2 Port Receptacle X2
X100	Chassis Wiring Harness to Body Wiring Harness	—	In the engine compartment, top left side, near shock tower.	• Body Harness Routing - Left Side of Engine Compartment • Chassis Harness Routing - Front	X100 Chassis Wiring Harness to Body Wiring Harness
X101	Body Wiring Harness to Chassis Wiring Harness	—	In the engine compartment, top left side, to the right and before X100 connector.	• Body Harness Routing - Left Side of Engine Compartment • Chassis Harness Routing - Front	X101 Body Wiring Harness to Chassis Wiring Harness
X107	Chassis Wiring Harness to Power Steering Wiring Harness	—	In the engine compartment, near bottom left of engine near steering gear.	Chassis Harness Routing - Front	X107 Chassis Wiring Harness to Power Steering Wiring Harness
X144	Engine Wiring Harness to Oil Pump Flow Control Solenoid Valve Harness	—	Under the vehicle, in right front wheel well, near frame rail.	Engine Harness Routing - Left	X144 Engine Wiring Harness to Oil Pump Flow Control Solenoid Valve Harness
X150	Body Wiring Harness to Forward Lamp Wiring Harness	—	At front left of vehicle, attached to body structure rear of E13LA Front Headlamp - Left.	• Body Harness Routing - Left Side of Engine Compartment • Forward Lamp Harness Routing - Front Fascia	X150 Body Wiring Harness to Forward Lamp Wiring Harness
X156	Body Wiring Harness to Forward Lamp Wiring Harness	UV2/UXA	At front right of vehicle, rear of E13RA Front Headlamp - Right.	• Body Harness Routing - Right Side of Engine Compartment • Forward Lamp Harness Routing - Front Fascia	X156 Body Wiring Harness to Forward Lamp Wiring Harness (UV2 / UXA)
X160	Engine Wiring Harness to Fuel Injector Wiring Harness	—	In the engine compartment, left side of engine below intake manifold.	Engine Harness Routing - Left	X160 Engine Wiring Harness to Fuel Injector Wiring Harness
X175	Engine Wiring Harness to Automatic Transmission Wiring Harness	—	Under the vehicle, at the rear of the T12 Automatic Transmission.	Engine Harness Routing - Right Front	X175 Engine Wiring Harness to Automatic Transmission Wiring Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X176	Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness	—	Under the vehicle, inside the T12 Automatic Transmission.	—	*X176 Automatic Transmission Wiring Harness to Automatic Transmission Wiring Harness*
X195	Forward Lamp Wiring Harness to Front View Camera Switch Wiring Harness	—	At front right of vehicle, under the E13RA Front Headlamp - Right.	• *Forward Lamp Harness Routing - Front Fascia* • *Front Fascia Harness Routing*	*X195 Forward Lamp Wiring Harness to Front View Camera Switch Wiring Harness*
X198	Power Steering Wiring Harness to Battery Negative Cable Extension Cable	—	Under the vehicle, near power steering gear.	—	*X198 Power Steering Wiring Harness to Battery Negative Cable Extension Cable*
X199	Chassis Wiring Harness to Body Wiring Harness	—	In the engine compartment, top left side, below the X101 connector.	• *Body Harness Routing - Left Side of Engine Compartment* • *Chassis Harness Routing - Front*	*X199 Chassis Wiring Harness to Body Wiring Harness*
X201	Engine Wiring Harness to Body Wiring Harness	—	Under the vehicle, right, behind X50B Battery Distribution Engine Compartment Fuse Block.	• *Body Harness Routing - Right Side of Engine Compartment* • *Engine Harness Routing - Right Front*	*X201 Engine Wiring Harness to Body Wiring Harness*
X204	Engine Wiring Harness to Chassis Wiring Harness	—	In the engine compartment, bottom right, under the turbocharger.	• *Chassis Harness Routing - Front* • *Engine Harness Routing - Right Front*	*X204 Engine Wiring Harness to Chassis Wiring Harness*
X250A	Radiator Extension Harness to Forward Lamp Wiring Harness	—	At front right of vehicle, lower right side of radiator.	*Forward Lamp Harness Routing - Front Fascia*	*X250A Radiator Extension Harness to Forward Lamp Wiring Harness*
X250J	Windshield Washer Pump Extension Wiring Harness to Forward Lamp Wiring Harness	—	At front left of vehicle, to the right of connector X156, rear of E13LA Front Headlamp - Right	*Forward Lamp Harness Routing - Front Fascia*	*X250J Windshield Washer Pump Extension Wiring Harness to Forward Lamp Wiring Harness*
X250R	Body Wiring Harness to Forward Lamp Wiring Harness	—	At front right of vehicle, to the right of the radiator.	• *Body Harness Routing - Right Side of Engine Compartment* • *Forward Lamp Harness Routing - Front Fascia*	*X250R Body Wiring Harness to Forward Lamp Wiring Harness*
X260	Front Object Alarm Sensor Wiring Harness to Forward Lamp Wiring Harness	—	At front right of vehicle, under the E13RA Front Headlamp - Right.	• *Forward Lamp Harness Routing - Front Fascia* • *Front Fascia Harness Routing*	*X260 Front Object Alarm Sensor Wiring Harness to Forward Lamp Wiring Harness*
X300	Body Wiring Harness to Instrument Panel Wiring Harness	—	In the passenger compartment, left front, behind the left front trim panel beneath the A-pillar.	• *Body Harness Routing - Left Front of Passenger Compartment* • *Instrument Panel Harness Routing*	*X300 Body Wiring Harness to Instrument Panel Wiring Harness*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X301	Body Wiring Harness to Instrument Panel Wiring Harness	—	In the passenger compartment, left front, behind the left front trim panel beneath the A-pillar below connector J300.	• *Body Harness Routing - Left Front of Passenger Compartment* • *Instrument Panel Harness Routing*	*X301 Body Wiring Harness to Instrument Panel Wiring Harness*
X302A	Front Seat Wiring Harness - Driver to Body Wiring Harness	—	In the passenger compartment, driver side, on floor below driver seat next to connector X302B.	• *Body Harness Routing - Left Front of Passenger Compartment* • *Front Seat Wiring Harness - Driver Routing*	*X302A Front Seat Wiring Harness - Driver to Body Wiring Harness*
X302B	Front Seat Wiring Harness - Driver to Body Wiring Harness	—	In the passenger compartment, driver side, on floor below driver seat Next to connector X302A.	• *Body Harness Routing - Left Front of Passenger Compartment* • *Front Seat Wiring Harness - Driver Routing*	*X302B Front Seat Wiring Harness - Driver to Body Wiring Harness*
X303	Body Wiring Harness to Front Side Door Door Wiring Harness - Driver	—	In the driver door jamb, front, mounted to the body.	• *Body Harness Routing - Left Front of Passenger Compartment* • *Driver Door Harness Routing (UQ3)* • *Driver Door Harness Routing (UQA)*	*X303 Body Wiring Harness to Front Side Door Door Wiring Harness - Driver*
X304	Instrument Panel Wiring Harness to Front Floor Console Wiring Harness Extension Harness	—	In the passenger compartment, center, beneath the front of the floor console.	*Floor Console Harness Routing*	*X304 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness Extension Harness*
X305	Instrument Panel Wiring Harness to Front Floor Console Wiring Harness	—	In the passenger compartment, center, beneath the middle of the floor console.	*Floor Console Harness Routing*	*X305 Instrument Panel Wiring Harness to Front Floor Console Wiring Harness*
X315	Instrument Panel Wiring Harness to Air Conditioning Wiring Harness	—	In the passenger compartment, right front, within instrument panel, right side near M8 Blower Motor.	*Instrument Panel Harness Routing*	*X315 Instrument Panel Wiring Harness to Air Conditioning Wiring Harness*
X367	Instrument Panel Wiring Harness to Body Wiring Harness	—	In the passenger compartment, center, beneath the cup holder of the floor console.	• *Body Harness Routing - Left Front of Passenger Compartment* • *Floor Console Harness Routing*	*X367 Instrument Panel Wiring Harness to Body Wiring Harness*
X371	Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness	UXA	Under the vehicle, left, before the cross member next to connector X372.	*Vehicle Underbody Camera Harness Routing (UXA)*	*X371 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA)*
X372	Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness	UXA	Under the vehicle, left, before the cross member next to connector X371.	*Vehicle Underbody Camera Harness Routing (UXA)*	*X372 Rearview Camera Wiring Harness Jumper to Rearview Camera Wiring Harness (UXA)*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X375	Roof Wiring Harness to Sunroof Jumper Wiring Harness	CAC	In the passenger compartment, above the headliner.	—	*X375 Roof Wiring Harness to Sunroof Jumper Wiring Harness (CAC)*
X380	Instrument Panel Wiring Harness to Body Wiring Harness	UV2/UXA-UVB	In the passenger compartment, left front, behind the left front trim panel beneath the A-pillar above connector J300.	• *Body Harness Routing - Left Front of Passenger Compartment* • *Instrument Panel Harness Routing*	*X380 Instrument Panel Wiring Harness to Body Wiring Harness (UV2 / UXA - UVB)*
X382	Chassis Wiring Harness to Chassis Wiring Harness	S0Y	At the rear of the vehicle, left corner, underneath, to bed.	*Chassis Harness Routing - Rear*	*X382 Chassis Wiring Harness to Chassis Wiring Harness*
X383	Rearview Camera Wiring Harness Jumper to Body Wiring Harness	UXA	Under the vehicle, let side, at frame rail just under bulk head.	*Body Harness Routing - Left Side of Engine Compartment*	*X383 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)*
X384	Rearview Camera Wiring Harness Jumper to Body Wiring Harness	UXA	Under the vehicle, let side, at frame rail just under bulk head.	*Body Harness Routing - Left Side of Engine Compartment*	*X384 Rearview Camera Wiring Harness Jumper to Body Wiring Harness (UXA)*
X393	Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver	—	In the drivers door, behind the drivers door panel.	• *Driver Door Harness Routing (UQ3)* • *Driver Door Harness Routing (UQA)* • *Driver Door Trim Harness Routing*	*X393 Front Side Door Door Wiring Harness - Driver to Front Side Door Door Lock Door Wiring Harness - Driver*
X399	Instrument Panel Wiring Harness to Body Wiring Harness	UVB-UV2	In the passenger compartment, left front, behind the left front trim panel beneath the A-pillar above connector J300.	• *Body Harness Routing - Left Front of Passenger Compartment* • *Instrument Panel Harness Routing*	*X399 Instrument Panel Wiring Harness to Body Wiring Harness (UVB - UV2)*
X400	Instrument Panel Wiring Harness to Body Wiring Harness	—	In the passenger compartment, right front, behind the right front trim panel beneath the A-pillar.	• *Body Harness Routing - Right Front of Passenger Compartment* • *Instrument Panel Harness Routing*	*X400 Instrument Panel Wiring Harness to Body Wiring Harness*
X401	Roof Wiring Harness to Body Wiring Harness	—	In the passenger compartment, top left instrument panel, at the A-pillar.	• *Body Harness Routing - Left Front of Passenger Compartment* • *Headliner Harness Routing (-CAC)* • *Headliner Harness Routing (CAC)*	*X401 Roof Wiring Harness to Body Wiring Harness*
X402A	Front Seat Wiring Harness - Passenger to Body Wiring Harness	—	In the passenger compartment, center, under center console toward the rear.	• *Body Harness Routing - Right Front of Passenger Compartment* • *Front Seat Wiring Harness - Passenger Routing*	*X402A Front Seat Wiring Harness - Passenger to Body Wiring Harness*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X402B	Front Seat Wiring Harness - Passenger to Body Wiring Harness	—	In the passenger compartment, center, under center console toward the rear.	• Body Harness Routing - Right Front of Passenger Compartment • Front Seat Wiring Harness - Passenger Routing	X402B Front Seat Wiring Harness - Passenger to Body Wiring Harness
X402C	Roof Wiring Harness to Body Wiring Harness	—	In the passenger compartment, top right instrument panel, at the A-pillar.	• Body Harness Routing - Left Front of Passenger Compartment • Headliner Harness Routing (-CAC) • Headliner Harness Routing (CAC)	X402C Roof Wiring Harness to Body Wiring Harness
X402D	Inside Air Moisture and Windshield Temperature Sensor Jumper to Roof Wiring Harness	CJ2	In the passenger compartment, at the top center of the windshield.	• Headliner Harness Routing (-CAC) • Headliner Harness Routing (CAC)	X402D Inside Air Moisture and Windshield Temperature Sensor Jumper to Roof Wiring Harness (CJ2)
X404	Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Wiring Harness - Passenger	—	In the passenger compartment, right front, behind the right front trim panel beneath the A-pillar.	• Body Harness Routing - Right Front of Passenger Compartment • Passenger Door Harness Routing (UQ3) • Passenger Door Harness Routing (UQA)	X404 Body Wiring Harness to Front Side Door Wiring Harness - Passenger
X494	Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger	—	In the passenger door, behind the passenger door panel.	• Passenger Door Harness Routing (UQ3) • Passenger Door Harness Routing (UQA) • Passenger Door Trim Harness Routing	X494 Front Side Door Door Wiring Harness - Passenger to Front Side Door Door Lock Door Wiring Harness - Passenger
X499B	Body Wiring Harness to Instrument Panel Wiring Harness	U2Q	In the passenger compartment, right front, behind the right front trim panel beneath the A-pillar.	• Instrument Panel Harness Routing • Instrument Panel Harness Routing	X499B Body Wiring Harness to Instrument Panel Wiring Harness (U2Q)
X499C	Body Wiring Harness to Instrument Panel Wiring Harness	U2K	In the passenger compartment, right front, behind the right front trim panel beneath the A-pillar.	• Body Harness Routing - Right Front of Passenger Compartment • Instrument Panel Harness Routing	X499C Body Wiring Harness to Instrument Panel Wiring Harness
X500	Roof Wiring Harness to Body Wiring Harness	—	In the passenger compartment , rear of cab roof, at center high mounted stop lamp.	• Body Harness Routing - Left Rear of Passenger Compartment • Headliner Harness Routing (-CAC) • Headliner Harness Routing (CAC)	X500 Roof Wiring Harness to Body Wiring Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X503	Rear Side Door Door Wiring Harness - Left to Body Wiring Harness	—	In the passenger compartment, behind the left B-pillar, near the middle.	• Body Harness Routing - Left Rear of Passenger Compartment • Left Rear Door Harness Routing	X503 Rear Side Door Door Wiring Harness - Left to Body Wiring Harness
X604	Rear Side Door Door Wiring Harness - Right to Body Wiring Harness	—	In the passenger compartment, behind the right B-pillar, near the middle.	• Body Harness Routing - Center and Right of Passenger Compartment • Right Rear Door Harness Routing	X604 Rear Side Door Door Wiring Harness - Right to Body Wiring Harness
X700	Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness	—	At the rear of the vehicle, left corner, underneath, on inboard side of frame rail.	• Chassis Harness Routing - Rear • Rear Fascia Harness Routing	X700 Rear Object Alarm Sensor Wiring Harness to Chassis Wiring Harness
X708	Chassis Rear Wiring Harness to Chassis Wiring Harness	—	At the rear of the vehicle, left corner, underneath, on outside of frame rail behind bed mount attached to frame.	—	X708 Chassis Rear Wiring Harness to Chassis Wiring Harness
X777	Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness	-G94	Under the vehicle, left, rear of the fuel tank.	Chassis Harness Routing - Rear	X777 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness (- G94)
X788	Chassis Wiring Harness to Chassis Rear Wiring Harness Extension Harness	G94	Under the vehicle, left, rear of the fuel tank.	Chassis Harness Routing - Rear	X788 Chassis Wiring Harness to Chassis Rear Wiring Harness Extension Harness (G94)
X808	Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness	—	At the rear of the vehicle, right corner, underneath, on right frame rail just rear of connector X820.	Chassis Harness Routing - Rear	X808 Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness
X820	Body Rear Wiring Harness to Chassis Wiring Harness	KC9/KCA	At the rear of the vehicle, right corner, underneath, on right frame rail just forward of connector X808.	Chassis Harness Routing - Rear	X820 Body Rear Wiring Harness to Chassis Wiring Harness (KC9 / KCA)
X904A	Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness	—	Under the vehicle, left, rear of the fuel tank.	Chassis Harness Routing - Rear	X904A Chassis Rear Wiring Harness Extension Harness to Chassis Wiring Harness
X933	Chassis Wiring Harness to Rear Object Alarm Sensor Wiring Harness	—	At the rear of the vehicle, left corner, underneath, on inboard side of frame rail.	• Chassis Harness Routing - Rear • Rear Fascia Harness Routing	X933 Chassis Wiring Harness to Rear Object Alarm Sensor Wiring Harness
X950	Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness	—	At the rear of the vehicle, center, beneath truck bed, forward of endgate.	• Endgate Harness Routing • Rear Fascia Harness Routing	X950 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness
X955	Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness	—	At the rear of the vehicle, center, beneath truck bed, forward of endgate.	• Endgate Harness Routing • Rear Fascia Harness Routing	X955 Liftgate Jumper Wiring Harness to Rear Object Alarm Sensor Wiring Harness

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
G100	Battery Negative Cable	—	In the engine compartment, right rear, mounted to engine block.	G100	—
G101A	Body Wiring Harness	—	In the passenger compartment, under driver front seat.	G101A, G101B, and G176	—
G101B	Body Wiring Harness	—	In the engine compartment, left side, attached to the inboard side of the left body structure, near A104 Brake Master Cylinder.	G101A, G101B, and G176	—
G101C	Engine Wiring Harness	—	Under the front of the vehicle, left, attached to the front cross member.	G101C, G102A, G102C, and G103	—
G102A	Engine Wiring Harness	—	In the engine compartment, left rear, attached to the left rear of the cylinder head.	G102A, G102B, and G102D	—
G102B	Engine Wiring Harness	—	In the engine compartment, left rear, attached to the left rear of the cylinder head.	G102A, G102B, and G102D	—
G102C	Engine Wiring Harness	—	In the engine compartment, on the front right side of the engine above G103.	G101C, G102A, G102C, and G103	—
G102D	Engine Wiring Harness	—	In the engine compartment, right rear, attached to the right rear of the cylinder head.	G102A, G102B, and G102D	—
G102E	Forward Lamp Wiring Harness	—	In the engine compartment, right side, attached to the inboard side of the right body structure, forward of X50A Engine Wiring Harness Junction Block	G102E	—
G102F	Forward Lamp Wiring Harness	—	n the engine compartment, left front, attached to the inboard side of the left body structure, left lower corner.	G102F	—
G103	Engine Wiring Harness	—	In the engine compartment, on the front right side of the engine bellow G102.	G101C, G102A, G102C, and G103	—
G104	Body Wiring Harness	—	In the engine compartment, right side, attached to the inboard side of the right body structure, rearward of X50A Engine Wiring Harness Junction Block	G104	—
G105	Battery Negative Cable	—	In the engine compartment, right side, attached to the inboard side of the right body structure, above center of the battery.	G105	—
G106	Engine Ground Strap	—	In the engine compartment, right, connected to the right lower engine block.	G106 and G107	—
G107	Engine Ground Strap	—	In the engine compartment, right, connected to the right lower bulk head.	G106 and G107	—
G176	Body Wiring Harness	—	In the passenger compartment, under driver front seat.	G101A, G101B, and G176	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
G200	Instrument Panel Wiring Harness	—	In the passenger compartment, center, under the center console, second ground from the back.	G200, G202, G203, and G204	—
G201A	Engine Wiring Harness	—	In the engine compartment, on the upper support rail just to the left of the battery.	G101C, G102A, G102C, and G103	—
G201B	Battery Negative Cable	—	Under the front of the vehicle, right, attached to the front cross member.	—	—
G202	Instrument Panel Wiring Harness	—	In the passenger compartment, center, under the center console, first ground towards the rear.	G200, G202, G203, and G204	—
G203	Instrument Panel Wiring Harness	—	In the passenger compartment, center, under the center console, second ground from the front.	G200, G202, G203, and G204	—
G204	Instrument Panel Wiring Harness	—	In the passenger compartment, center, under the center console, first ground towards the front.	G200, G202, G203, and G204	—
G301A	Body Wiring Harness	—	In the passenger compartment, rear, under the left side C-pillar upper trim.	G301A and G301B	—
G301B	Body Wiring Harness	—	In the passenger compartment, rear, under the left side C-pillar upper trim.	G301A and G301B	—
G301C	Body Wiring Harness	—	In the passenger compartment, rear, behind trim panel, middle of C-pillar.	G301C, G304, and G305	—
G304	Instrument Panel Wiring Harness	—	In the passenger compartment, right, under passenger front seat.	G301C, G304, and G305	—
G305	Battery Negative Cable	—	In the passenger compartment, right, under passenger front seat.	G301C, G304, and G305	—
G401A	Chassis Wiring Harness	—	Under the rear of the vehicle, forward of the hitch and endgate, attached to the rear of the frame cross member, to the left.	G401A and G401B	—
G401B	Chassis Wiring Harness	—	Under the rear of the vehicle, right, attached to the outer rear of the frame.	G401A and G401B	—
G403	Chassis Wiring Harness	—	Under the vehicle, left side center, attached to the center box mount.	G403, G405A, and G405B	—
G405A	Chassis Wiring Harness	—	Under the vehicle, left side, attached to the frame right after the rear of the box mount.	G403, G405A, and G405B	—
G405B	Chassis Wiring Harness	—	Under the vehicle, left side, attached to the frame right after the rear of the box mount.	G403, G405A, and G405B	—
J100	Front Object Alarm Sensor Wiring Harness	T40	In the front of the vehicle, approximately 25.3 cm (9.96 in) from brakeout to X260 towards the E29RF Front Fog Lamp - Left.	Front Fascia Harness Routing	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J101	Front Object Alarm Sensor Wiring Harness	—	In the front of the vehicle, approximately 40.3 cm (15.86 in) from E29RF Front Fog Lamp - Left towards breakout to X260.	Front Fascia Harness Routing	—
J102	Forward Lamp Wiring Harness	—	In the left front of engine compartment, approximately 46.1 cm (18.4 in) from E13LA Front Headlamp - Left.	Forward Lamp Harness Routing - Front Fascia	—
J103	Forward Lamp Wiring Harness	—	In the engine compartment, approximately 6.9 cm (2.71 in) from brakeout to P13 horn towards connector X150.	Forward Lamp Harness Routing - Front Fascia	—
J104	Forward Lamp Wiring Harness	—	In the engine compartment, approximately 5.1 cm (2 in) from brakeout to connector X250R towards center of vehicle.	Forward Lamp Harness Routing - Front Fascia	—
J105	Body Wiring Harness	—	In the engine compartment, approximately 28.1 cm (11 in) from grommet at the bulkhead towards outside of vehicle.	Body Harness Routing - Right Side of Engine Compartment	—
J106	Body Wiring Harness	—	In the engine compartment, approximately 31.3 cm (12.3 in) from breakout to grommet at the bulkhead towards outside of vehicle.	Body Harness Routing - Right Side of Engine Compartment	—
J107	Body Wiring Harness	—	In the engine compartment, approximately 36.3 cm (14.3 in) from breakout to grommet at the bulkhead towards outside of vehicle.	Body Harness Routing - Right Side of Engine Compartment	—
J108	Chassis Wiring Harness	—	In the front of the vehicle, center, approximately 24.7 cm (9.72 in) from M96B Active Grille Air Shutter Actuator 2.	Chassis Harness Routing - Front	—
J109	Chassis Wiring Harness	—	In the engine compartment, left side, approximately 19.2 cm (7.55 in) from connector X100.	Chassis Harness Routing - Front	—
J110	Body Wiring Harness	—	In the engine compartment, approximately 5 cm (1.9 in) from brakeout to X101 and X199 towards the bulkhead.	Body Harness Routing - Left Side of Engine Compartment	—
J111	Body Wiring Harness	—	In the engine compartment, approximately 46.3 cm (18.22 in) from connector X160.	Body Harness Routing - Left Side of Engine Compartment	—
J112	Body Wiring Harness	—	In the engine compartment, approximately 21.8 cm (8.58 in) from K160 Brake System Control Module.	Body Harness Routing - Left Side of Engine Compartment	—
J113	Body Wiring Harness	—	In the engine compartment, approximately 11.3 cm (4044 in) from brakeout to G101A towards the front of the vehicle.	Body Harness Routing - Left Side of Engine Compartment	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J114	Body Wiring Harness	—	In the engine compartment, approximately 5 cm (1.9 in) from brakeout to G101A towards the front of the vehicle.	*Body Harness Routing - Left Side of Engine Compartment*	—
J115	Chassis Wiring Harness	—	In the engine compartment, right front, approximately 26 cm (10.23 in) from X50A Engine Wiring Harness Junction Block X1.	*Chassis Harness Routing - Front*	—
J116	Chassis Wiring Harness	—	Under the vehicle, right side center, approximately 62.5 cm (124.6 in) from brakeout to X50A Engine Wiring Harness Junction Block X1, at front cab mount.	*Chassis Harness Routing - Front*	—
J120	Engine Wiring Harness	—	In the engine compartment, right side, approximately 10.2 cm (4 in) from X50A Engine Wiring Harness Junction Block X2.	*Engine Harness Routing - Right Front*	—
J121	Engine Wiring Harness	—	In the engine compartment, right side, approximately 15.2 cm (5.98 in) from X50A Engine Wiring Harness Junction Block X2.	*Engine Harness Routing - Right Front*	—
J122	Engine Wiring Harness	—	In the engine compartment, right side, approximately 13 cm (5.11 in) from brakeout to G201A going towards the rear.	*Engine Harness Routing - Right Front*	—
J123	Engine Wiring Harness	—	In the engine compartment, right rear, approximately 13.4 cm (9.25 in) from brakeout to connector X201 going forward to the front.	*Engine Harness Routing - Right Front*	—
J124	Engine Wiring Harness	—	In the engine compartment, right rear, approximately 13.4 cm (5.27 in) from brakeout to connector X201 going forward to the front.	*Engine Harness Routing - Right Front*	—
J125	Engine Wiring Harness	—	In the engine compartment, right rear, approximately 8.1 cm (3.11 in) from brakeout to connector X201 going forward to the front.	*Engine Harness Routing - Right Front*	—
J126	Engine Wiring Harness	—	In the engine compartment, right, approximately 18.8 cm (7.4 in) from brakeout to connector X204.	*Engine Harness Routing - Right Front*	—
J127	Engine Wiring Harness	—	In the engine compartment, right, approximately 4.5 cm (1.77 in) from brakeout to connector X204 going forward to the front.	*Engine Harness Routing - Right Front*	—
J128	Engine Wiring Harness	—	In the engine compartment, right front, approximately 6.9 cm (2.71 in) from brakeout to Q12 Evaporative Emission Canister Purge Solenoid Valve.	*Engine Harness Routing - Right Front*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J129	Engine Wiring Harness	—	In the engine compartment, right front, approximately 10 cm (3.93 in) from brakeout to Q12 Evaporative Emission Canister Purge Solenoid Valve.	Engine Harness Routing - Right Front	—
J130	Engine Wiring Harness	—	In the engine compartment, top front of engine, approximately 4.5 cm (1.77 in) from brakeout to M130B Exhaust Camshaft Profile Actuator 2.	Engine Harness Routing - Right Front	—
J131	Engine Wiring Harness	—	In the engine compartment, front center of engine, approximately 10 cm (3.93 in) from brakeout to G102C.	Engine Harness Routing - Right Front	—
J132	Engine Wiring Harness	—	In the engine compartment, front top left of engine, approximately 19.7 cm (7.75 in) from brakeout to G102C.	Engine Harness Routing - Left	—
J133	Engine Wiring Harness	—	In the engine compartment, top right of engine, approximately 5 cm (1.96 in) from brakeout to B321 Crankcase Pressure Sensor.	Engine Harness Routing - Right Front	—
J134	Engine Wiring Harness	—	In the engine compartment, top right of engine, approximately 3.9 cm (1.53 in) from brakeout to B321 Crankcase Pressure Sensor.	Engine Harness Routing - Right Front	—
J135	Engine Wiring Harness	—	In the engine compartment, front center of engine, approximately 4.5 cm (1.77 in) Q6F Camshaft Position Actuator Solenoid Valve - Intake.	Engine Harness Routing - Left	—
J136	Engine Wiring Harness	—	In the engine compartment, front center of engine, approximately 10 cm (3.93 in) Q6F Camshaft Position Actuator Solenoid Valve - Intake.	Engine Harness Routing - Left	—
J137	Engine Wiring Harness	—	In the engine compartment, right rear, approximately 7.6 cm (2.99 in) from brakeout to B52B Heated Oxygen Sensor 2.	Engine Harness Routing - Right Front	—
J138	Engine Wiring Harness	—	In the engine compartment, top left of engine, approximately 5 cm (1.96 in) from brakeout to Q38 Throttle Body.	Engine Harness Routing - Left	—
J139	Engine Wiring Harness	—	In the engine compartment, bottom left of engine, approximately 12.2 cm (4.80 in) from M64 Starter.	Engine Harness Routing - Left	—
J140	Engine Wiring Harness	—	In the engine compartment, top left of engine, approximately 4 cm (15.74 in) from brakeout to T8B Ignition Coil 2.	Engine Harness Routing - Left	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J141	Engine Wiring Harness	—	In the engine compartment, top left of engine, approximately 7.2 cm (2.83 in) from brakeout to G58 Evaporative Emission Canister Purge Pump.	Engine Harness Routing - Left	—
J142	Engine Wiring Harness	—	In the engine compartment, left, approximately 33.3 cm (13.11 in) from B75 Mass Airflow Sensor.	Engine Harness Routing - Left	—
J143	Engine Wiring Harness	—	In the engine compartment, top left rear, approximately 3.4 cm (1.33 in) from brakeout to T8C Ignition Coil 3.	Engine Harness Routing - Left	—
J144	Engine Wiring Harness	—	In the engine compartment, left, approximately 5 cm (1.96 in) from B75 Mass Airflow Sensor.	Engine Harness Routing - Left	—
J145	Engine Wiring Harness	—	In the engine compartment, approximately 4.8 cm (1.88 in) from brakeout to B139 Transfer Case Two/Four Wheel Drive Actuator Position Sensor.	Engine Harness Routing - Left	—
J146	Engine Wiring Harness	—	In the engine compartment, approximately 9.8 cm (3.85 in) from brakeout to B139 Transfer Case Two/Four Wheel Drive Actuator Position Sensor.	Engine Harness Routing - Left	—
J147	Engine Wiring Harness	—	In the engine compartment, left, approximately 9 cm (3.54 in) from B75 Mass Airflow Sensor.	Engine Harness Routing - Left	—
J148	Engine Wiring Harness	—	In the engine compartment, left, approximately 10.2 cm (4.01 in) from brakout to connector X160.	Engine Harness Routing - Left	—
J149	Engine Wiring Harness	—	In the engine compartment, left, approximately 8 cm (3.14 in) from brakout to G101C.	Engine Harness Routing - Left	—
J150	Engine Wiring Harness	—	In the engine compartment, left, approximately 8 cm (3.14 in) from brakout to G10L Cooling Fan Motor - Left.	Engine Harness Routing - Left	—
J151	Engine Wiring Harness	—	In the engine compartment, left, approximately 13.1 cm (5.15 in) from brakout to K69 Transfer Case Control Module.	Engine Harness Routing - Left	—
J152	Engine Wiring Harness	—	In the engine compartment, left, approximately 8.1 cm (3.18 in) from brakout to K69 Transfer Case Control Module.	Engine Harness Routing - Left	—
J175	Automatic Transmission Wiring Harness	—	Under the vehicle, within T12 Automatic Transmission.	—	—
J176	Automatic Transmission Wiring Harness	—	Under the vehicle, within T12 Automatic Transmission.	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J177	Automatic Transmission Wiring Harness	—	Under the vehicle, within T12 Automatic Transmission.	—	—
J200	Body Wiring Harness	—	In the passenger compartment, inside the instrument approximately 22.6 cm (8.9 in) from breakout to the grommet on the left side bulkhead under instrument panel.	*Body Harness Routing - Left Front of Passenger Compartment*	—
J201	Body Wiring Harness	—	In the passenger compartment, inside the instrument approximately 16 cm (6.3 in) from breakout to B22 Brake Pedal Position Sensor towards center of vehicle.	*Body Harness Routing - Left Front of Passenger Compartment*	—
J202	Body Wiring Harness	—	In the passenger compartment, inside the instrument approximately 17.3 cm (6.81 in) from breakout to B107 Accelerator Pedal Position Sensor towards center of vehicle.	*Body Harness Routing - Left Front of Passenger Compartment*	—
J203	Body Wiring Harness	—	In the passenger compartment, inside the instrument approximately 16.6 cm (6.53 in) from breakout to B107 Accelerator Pedal Position Sensor towards center side of vehicle.	*Body Harness Routing - Right Front of Passenger Compartment*	—
J204	Body Wiring Harness	—	In the passenger compartment, inside the instrument panel approximately 67 cm (24.3 in) from breakout to grommet at the bulkhead inside on passenger side of vehicle.	*Body Harness Routing - Right Front of Passenger Compartment*	—
J205	Body Wiring Harness	—	In the passenger compartment, inside the instrument panel approximately 60 cm (23.6 in) from breakout to grommet at the bulkhead inside on passenger side of vehicle.	*Body Harness Routing - Right Front of Passenger Compartment*	—
J206	Body Wiring Harness	—	In the passenger compartment, inside the instrument panel, approximately 45 cm (17.7 in) from breakout to grommet at the bulkhead inside on passenger side of vehicle.	*Body Harness Routing - Right Front of Passenger Compartment*	—
J207	Body Wiring Harness	—	In the passenger compartment, inside the instrument panel, approximately 25.8 cm (10.15 in) from grommet at the bulkhead inside on let side of vehicle.	*Body Harness Routing - Left Front of Passenger Compartment*	—
J208	Instrument Panel Wiring Harness	—	Behind the instrument panel, left side, in main bundle, approximately 12.3 cm (4.84 in) from brakeout to X84 Data Link Connector.	*Instrument Panel Harness Routing*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J209	Instrument Panel Wiring Harness	—	Behind the instrument panel, left side, in main bundle left of steering column, approximately 26.7 cm (10.51 in) from brakeout to K157 Video Processing Module X2.	*Instrument Panel Harness Routing*	—
J210	Instrument Panel Wiring Harness	—	Behind the instrument panel, left side, in main bundle left of steering column, approximately 7.5 cm (2.95 in) from brakeout to K157 Video Processing Module X2.	*Instrument Panel Harness Routing*	—
J211	Instrument Panel Wiring Harness	—	Behind the instrument panel, left side, in main bundle above steering column, approximately 5 cm (1.96 in) from brakeout to P16 Instrument Panel Cluster Control Module.	*Instrument Panel Harness Routing*	—
J212	Instrument Panel Wiring Harness	—	Behind the instrument panel, left center, approximately 34.9 cm (13.74 in) from brakeout going back towards center console.	*Instrument Panel Harness Routing*	—
J213	Instrument Panel Wiring Harness	—	Behind the instrument panel, left center, approximately 29.7 cm (11.69 in) from brakeout going back towards center console.	*Instrument Panel Harness Routing*	—
J214	Instrument Panel Wiring Harness	—	Behind the instrument panel, left center, approximately 19.9 cm (7.83 in) from brakeout going back towards center console.	*Instrument Panel Harness Routing*	—
J215	Instrument Panel Wiring Harness	—	In the floor console, in the main bundle, approximately 5 cm (1.96 in) reward of brakeout to rear to connectors X304 and X305.	*Floor Console Harness Routing*	—
J216	Instrument Panel Wiring Harness	—	In the floor console, in the main bundle, approximately 15.9 cm (6.25 in) reward of brakeout to rear to connectors X304 and X305.	*Floor Console Harness Routing*	—
J217	Instrument Panel Wiring Harness	—	In the floor console, in the main bundle, approximately 27.4 cm (10.78 in) reward of brakeout to rear to connectors X304 and X305.	*Floor Console Harness Routing*	—
J218	Instrument Panel Wiring Harness	—	In the floor console, in the main bundle, approximately 32.2 cm (12.67 in) reward of brakeout to rear to connectors X304 and X305.	*Floor Console Harness Routing*	—
J219	Instrument Panel Wiring Harness	—	Behind the instrument panel, center top, in main bundle approximately 16.8 cm (6.6 in) from brakeout S26 Hazard Warning Switch.	*Instrument Panel Harness Routing*	—
J220	HVAC Wiring Harness	—	Internal in HVAC harness.	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J221	HVAC Wiring Harness	—	Internal in HVAC harness.	—	—
J222	Instrument Panel Wiring Harness	—	Behind the instrument panel, center top, in main bundle approximately 11.7 cm (4.6 in) from brakeout S26 Hazard Warning Switch.	*Instrument Panel Harness Routing*	—
J223	Instrument Panel Wiring Harness	—	Behind the instrument panel, center right, approximately 26 cm (10.23 in) from brakeout in main bundle towards S26 Hazard Warning Switch.	*Instrument Panel Harness Routing*	—
J224	Instrument Panel Wiring Harness	—	Behind the instrument panel, right, in main bundle approximately 17.9 cm (7.04 in) from brakeout to F101 Instrument Panel Airbag.	*Instrument Panel Harness Routing*	—
J225	Instrument Panel Wiring Harness	—	Behind the instrument panel, right, in main bundle approximately 5 cm (1.98 in) from brakeout to F101 Instrument Panel Airbag.	*Instrument Panel Harness Routing*	—
J226	Instrument Panel Wiring Harness	—	Behind the instrument panel, far right, off main bundle approximately 22.9 cm (9 in) from brakeout to A11 Radio.	*Instrument Panel Harness Routing*	—
J227	Instrument Panel Wiring Harness	—	Behind the instrument panel, far right, off main bundle approximately 10.8 cm (4.25 in) from brakeout to A11 Radio.	*Instrument Panel Harness Routing*	—
J228	Instrument Panel Wiring Harness	—	Behind the instrument panel, far right, in main bundle approximately 5 cm (1.98 in) from brakeout to A11 Radio.	*Instrument Panel Harness Routing*	—
J229	Instrument Panel Wiring Harness	—	Behind the instrument panel, far right, in main bundle approximately 14.8 cm (5.82 in) from brakeout to A11 Radio.	*Instrument Panel Harness Routing*	—
J230	Instrument Panel Wiring Harness	—	Behind the instrument panel, far right, in main bundle approximately 9.8 cm (3.8 in) from brakeout to A11 Radio.	*Instrument Panel Harness Routing*	—
J231	HVAC Wiring Harness	—	Internal in HVAC harness.	—	—
J240	Steering Wheel Wiring Harness	—	Internal in steering wheel harness.	—	—
J241	Steering Wheel Wiring Harness	—	Internal in steering wheel harness.	—	—
J300	Body Wiring Harness	—	In the passenger compartment, inside the instrument panel, approximately 14.4 cm (5.6 in) from breakout to B22 Brake Pedal Position Sensor.	*Body Harness Routing - Left Front of Passenger Compartment*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J301	Body Wiring Harness	—	In the passenger compartment, approximately 6.2 cm (2.44 in) from connector X301 in the left front kick panel..	Body Harness Routing - Left Front of Passenger Compartment	—
J302	Body Wiring Harness	—	In the passenger compartment, approximately 10 cm (4 in) from breakout to connectors X300 and X301 towards rear of vehicle.	Body Harness Routing - Left Front of Passenger Compartment	—
J303	Body Wiring Harness	—	In the passenger compartment, approximately 15 cm (6 in) from breakout to connectors X300 and X301 towards rear of vehicle.	Body Harness Routing - Left Front of Passenger Compartment	—
J304	Body Wiring Harness	—	In the passenger compartment, approximately 20 cm (8 in) from breakout to connectors X300 and X301 towards rear of vehicle.	Body Harness Routing - Left Front of Passenger Compartment	—
J305	Body Wiring Harness	—	In the passenger compartment, approximately 28 cm (11 in) from breakout to connectors X300 and X301 towards rear of vehicle.	Body Harness Routing - Left Front of Passenger Compartment	—
J306	Body Wiring Harness	—	In the passenger compartment, approximately 33 cm (13 in) from breakout to connectors X300 and X301 towards rear of vehicle.	Body Harness Routing - Left Front of Passenger Compartment	—
J307	Body Wiring Harness	—	In the passenger compartment, approximately 38 cm (15 in) from breakout to connectors X300 and X301 towards rear of vehicle.	Body Harness Routing - Left Front of Passenger Compartment	—
J308	Body Wiring Harness	—	In the passenger compartment, approximately 18.7 cm (7.36 in) from breakout to G101B and G175 towards the front of vehicle.	Body Harness Routing - Left Front of Passenger Compartment	—
J309	Body Wiring Harness	—	In the passenger compartment, approximately 8.7 cm (3.42 in) from breakout to G101B and G175 towards the front of vehicle.	Body Harness Routing - Left Front of Passenger Compartment	—
J310	Body Wiring Harness	—	In the passenger compartment, approximately 14.2 cm (5.6 in) from breakout to G101B and G175 towards the left side of vehicle.	Body Harness Routing - Left Front of Passenger Compartment	—
J311	Body Wiring Harness	—	In the passenger compartment, approximately 7 cm (2.75 in) from breakout to G101B and G175 towards the rear of vehicle.	Body Harness Routing - Left Front of Passenger Compartment	—
J312	Body Wiring Harness	—	In the passenger compartment, approximately 9.2 cm (3.62 in) from breakout to G101B and G175 towards the rear of vehicle.	Body Harness Routing - Left Front of Passenger Compartment	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J313	Body Wiring Harness	—	In the passenger compartment, approximately 14 cm (5.5 in) from X503 towards the left side of vehicle.	*Body Harness Routing - Left Rear of Passenger Compartment*	—
J314	Body Wiring Harness	—	In the passenger compartment, approximately 13 cm (5.11 in) from cannel in left side center towards the front side of vehicle.	*Body Harness Routing - Left Rear of Passenger Compartment*	—
J320	Body Wiring Harness	—	In the passenger compartment, approximately 18 cm (7.8 in) from breakout to X400 near the right lower A-Pillar.	*Body Harness Routing - Right Front of Passenger Compartment*	—
J321	Body Wiring Harness	—	In the passenger compartment, approximately 28 cm (11 in) from breakout to X400 front of passenger door sill.	*Body Harness Routing - Right Front of Passenger Compartment*	—
J322	Body Wiring Harness	—	In the passenger compartment, approximately 42 cm (16.53 in) from breakout to X400 middle of passenger front door sill.	*Body Harness Routing - Right Front of Passenger Compartment*	—
J323	Body Wiring Harness	—	In the passenger compartment, approximately 8.5 cm (3.34 in) after the breakout to G304 and G305.	*Body Harness Routing - Right Front of Passenger Compartment*	—
J324	Body Wiring Harness	—	In the passenger compartment, approximately 10 cm (3.93 in) from breakout to G304 and G305 of main channel on right side of vehicle.	*Body Harness Routing - Right Front of Passenger Compartment*	—
J325	Body Wiring Harness	—	In the passenger compartment, approximately 23.1 cm (9 in) from breakout to X402A and X402B.	*Body Harness Routing - Right Front of Passenger Compartment*	—
J326	Body Wiring Harness	—	In the passenger compartment, approximately 8.3 cm (3.26 in) from breakout to F113P Front Seat Belt Anchor Plate Tensioner - Passenger towards center of vehicle.	*Body Harness Routing - Center and Right of Passenger Compartment*	—
J327	Body Wiring Harness	—	In the passenger compartment, approximately 20.7 cm (8.14 in) from connector X604.	*Body Harness Routing - Center and Right of Passenger Compartment*	—
J328	Body Wiring Harness	—	In the passenger compartment, approximately 31.6 cm (12.44 in) from T19 Multifunction Power Supply Converter connector.	*Body Harness Routing - Center and Right of Passenger Compartment*	—
J330	Front Floor Console Wiring Harness	—	In the floor console, in the main bundle, approximately 7.9 cm (3.1 in) forward of connector X305.	*Floor Console Harness Routing*	—
J331	Front Floor Console Wiring Harness	—	In the floor console, in the main bundle, forward of the P2 Automatic Transmission Control Indicator.	*Floor Console Harness Routing*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J340	Front Seat Wiring Harness - Driver	—	In the driver seat, approximately 4 cm (1.57 in) forward of breakout to M73D Front Seat Cushion Ventilation Blower - Driver.	Front Seat Wiring Harness - Driver Routing	—
J341	Front Seat Wiring Harness - Driver	—	In the driver seat, approximately 7 cm (2.75 in) forward of breakout to M73D Front Seat Cushion Ventilation Blower - Driver.	Front Seat Wiring Harness - Driver Routing	—
J342	Front Seat Wiring Harness - Driver	—	In the driver seat, approximately 2 cm (.78 in) forward of breakout to M50D Front Seat Tilt Adjuster Actuator - Driver.	Front Seat Wiring Harness - Driver Routing	—
J343	Front Seat Wiring Harness - Driver	—	In the driver seat, approximately 2 cm (.78 in) forward of breakout to K40D Driver Seat Adjuster Memory Module.	Front Seat Wiring Harness - Driver Routing	—
J344	Front Seat Wiring Harness - Driver	—	In the driver seat, approximately 6.5 cm (2.55 in) reward of breakout to K40D Driver Seat Adjuster Memory Module.	Front Seat Wiring Harness - Driver Routing	—
J345	Front Seat Wiring Harness - Driver	—	In the driver seat, in branch to inboard items, approximately 11 cm (4.33 in) of breakout to P45R Front Seat Lane Departure Warning Actuator - Right.	Front Seat Wiring Harness - Driver Routing	—
J346	Front Seat Wiring Harness - Driver	—	In the driver seat, in branch to inboard items, approximately 7 cm (2.75 in) of breakout to P45R Front Seat Lane Departure Warning Actuator - Right.	Front Seat Wiring Harness - Driver Routing	—
J347	Front Seat Wiring Harness - Passenger	—	In the passenger seat, in the branch, approximately 5 cm (1.96 in) forward of breakout to K29FV Front Seat Heater Vent Control Module.	Front Seat Wiring Harness - Passenger Routing	—
J348	Front Seat Wiring Harness - Passenger	—	In the passenger seat, in the branch, approximately 15 cm (5.9 in) forward of breakout to K29FV Front Seat Heater Vent Control Module.	Front Seat Wiring Harness - Passenger Routing	—
J349	Front Seat Wiring Harness - Passenger	—	In the passenger seat, in the branch, approximately 7 cm (2.75 in) of breakout to M51P Front Seat Adjuster Actuator - Passenger.	Front Seat Wiring Harness - Passenger Routing	—
J350	Front Seat Wiring Harness - Passenger	—	In the passenger seat, in the branch, approximately 10 cm (3.93 in) of breakout to M51P Front Seat Adjuster Actuator - Passenger.	Front Seat Wiring Harness - Passenger Routing	—
J351	Front Seat Wiring Harness - Passenger	—	In the passenger seat, in the branch, approximately 3 cm (1.18 in) of breakout to connector X402B	Front Seat Wiring Harness - Passenger Routing	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J360	Headlining Wiring Harness	—	In the passenger compartment, left front, in harness channel behind right front A-pillar trim panel, approximately 32.8 cm (12.91 in) from connector X401.	- Headliner Harness Routing (-CAC) - Headliner Harness Routing (CAC)	—
J361	Headlining Wiring Harness	—	- (-CAC) In the passenger compartment, left front of headliner, approximately 26 cm (10.23 in) before brakeout to A103 Roof Console - (CAC) In the passenger compartment, right center of headliner, approximately 5 cm (1.96 in) before brakeout to A3R Sunshade - Right	- Headliner Harness Routing (-CAC) - Headliner Harness Routing (CAC)	—
J362	Headlining Wiring Harness	—	- (-CAC) In the passenger compartment, center front of headliner, approximately 15 cm (5.9 in) after brakeout to A103 Roof Console - (CAC) In the passenger compartment, right center front of headliner, approximately 42.4 cm (16.69 in) after brakeout to A3R Sunshade - Right.	- Headliner Harness Routing (-CAC) - Headliner Harness Routing (CAC)	—
J363	Headlining Wiring Harness	—	- (-CAC) In the passenger compartment, right front of headliner, approximately 24 cm (9.44 in) before brakeout to S51 Communication Center Call Switch - (CAC) In the passenger compartment, center of headliner, approximately 6 cm (2.36 in) before brakeout to S51 Communication Center Call Switch	- Headliner Harness Routing (-CAC) - Headliner Harness Routing (CAC)	—
J364	Headlining Wiring Harness	—	- (-CAC) In the passenger compartment, right side of headliner, approximately 29.4 cm (11.57 in) before brakeout to J363 - (CAC) In the passenger compartment, right side of headliner, approximately 100.9 cm (39.72 in) before brakeout to K77 Remote Function Actuator Module.	- Headliner Harness Routing (-CAC) - Headliner Harness Routing (CAC)	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J365	Headlining Wiring Harness	—	• (-CAC) In the passenger compartment, right side of headliner, approximately 26 cm (10.23 in) before brakeout to A103 Roof Console • (CAC) In the passenger compartment, left front of headliner, approximately 14 cm (155.11 in) before brakeout to A3L Sunshade - Left .	• *Headliner Harness Routing (-CAC)* • *Headliner Harness Routing (CAC)*	—
J366	Headlining Wiring Harness	CAC	In the passenger compartment, left center front of headliner, approximately 7.5 cm (2.95 in) after brakeout to A3L Sunshade - Left .	*Headliner Harness Routing (CAC)*	—
J368	Body Wiring Harness	—	In the passenger compartment, approximately 13 cm (5.11 in) from cannel in left side center towards the front side of vehicle.	—	—
J400	Chassis Wiring Harness	—	Under rear of vehicle, right rear frame rail, approximately 63.3 cm (24.9 in) before rear cross member.	*Chassis Harness Routing - Rear*	—
J401	Chassis Wiring Harness	—	Under rear of vehicle, center of rear corss member, approximately 42.7 cm (16.81 in) inboard of brakeout from left frame rail,.	*Chassis Harness Routing - Rear*	—
J402	Chassis Wiring Harness	—	Under rear of vehicle, center of rear cors smember, approximately 32.7 cm (12.87 in) inboard of brakeout from left frame rail,.	*Chassis Harness Routing - Rear*	—
J403	Chassis Wiring Harness	—	Under rear of vehicle, center of rear corss member, approximately 21.9 cm (9.62 in) inboard of brakeout from left frame rail,.	*Chassis Harness Routing - Rear*	—
J404	Chassis Wiring Harness	—	Under rear of vehicle, center of rear corss member, approximately 12.1 cm (4.76 in) inboard of brakeout from left frame rail,.	*Chassis Harness Routing - Rear*	—
J405	Chassis Jumper Wiring Harness	—	Internal in the Jumper harness.	—	—
J406	Chassis Wiring Harness	—	Under the vehicle, right side fame rail, approximately 11.6 cm (4.50 in) after breakout to the K38 Chassis Control Module.	*Chassis Harness Routing - Rear*	—
J407	Chassis Wiring Harness	—	Under the vehicle, approximately 11.6 cm (4.50 in) before breakout to the K67 Trailer Brake Control Module.	*Chassis Harness Routing - Rear*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J408	Chassis Wiring Harness	—	Under the vehicle, right side frame rail, approximately 12 cm (4.72 in) before breakout to G401B.	*Chassis Harness Routing - Rear*	—
J409	Chassis Wiring Harness	—	Under the vehicle, inboard left side frame rail, approximately 11.4 cm (4.48 in) before K111 Fuel Pump Power Control Module.	*Chassis Harness Routing - Rear*	—
J410	Chassis Wiring Harness	—	Under the vehicle, rear, approximately 4.8 cm (1.88 in) before K111 Fuel Pump Power Control Module behind fuel tank.	*Chassis Harness Routing - Rear*	—
J411	Chassis Wiring Harness	—	Under the vehicle, rear, approximately 31.1 cm (12.24 in) before breakout to G401A.	*Chassis Harness Routing - Rear*	—
J412	Chassis Wiring Harness	—	Under the vehicle, rear, approximately 17.8 cm (17 in) before breakout to G401A.	*Chassis Harness Routing - Rear*	—
J413	Chassis Wiring Harness	—	Under the vehicle, right side frame rail, approximately 5 cm (2 in) before breakout to G401B.	*Chassis Harness Routing - Rear*	—
J414	Chassis Wiring Harness	—	Under the vehicle, rear, approximately 9.9 cm (3.89 in) before breakout to G401A.	*Chassis Harness Routing - Rear*	—
J415	Chassis Wiring Harness	—	Under the vehicle, rear, approximately 5.1 cm (2 in) after breakout to G401A.	*Chassis Harness Routing - Rear*	—
J416	Chassis Wiring Harness	—	Under the vehicle, left side, approximately 3 cm (2.36 in) from breakout to A7 Fuel Tank Fuel Pump Module.	*Chassis Harness Routing - Rear*	—
J420	Chassis Wiring Harness	—	Accessory Package Component,.	—	—
J500	Front Side Door Door Wiring Harness - Driver	—	Inside the center front of the driver door, approximately 14.4 cm (5.66 in) from the breakout to S13D Door Lock Switch - Driver.	• *Driver Door Harness Routing (UQ3)* • *Driver Door Harness Routing (UQA)*	—
J501	Front Side Door Door Wiring Harness - Driver	—	Inside the front of the driver door, approximately 18.7 cm (7.36 in) from connector X303.	• *Driver Door Harness Routing (UQ3)* • *Driver Door Harness Routing (UQA)*	—
J502	Front Side Door Door Wiring Harness - Driver	—	Inside the bottom front of the driver door, approximately 27.4 cm (10.78 in) from the breakout to B63LF Airbag Side Impact Sensor - Left Front Door.	• *Driver Door Harness Routing (UQ3)* • *Driver Door Harness Routing (UQA)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J600	Front Side Door Door Wiring Harness - Passenger	—	Inside the center front of the passenger door, approximately 14.4 cm (5.66 in) from the breakout to S13P Door Lock Switch - Passenger.	• *Passenger Door Harness Routing (UQ3)* • *Passenger Door Harness Routing (UQA)*	—
J601	Front Side Door Door Wiring Harness - Passenger	—	Inside the bottom front of the passenger door, approximately 27.4 cm (10.78 in) from the breakout to B63RF Airbag Side Impact Sensor - Right Front Door.	• *Passenger Door Harness Routing (UQ3)* • *Passenger Door Harness Routing (UQA)*	—
J700	Rear Side Door Door Wiring Harness - Left	—	Inside left rear door, approximately 24.4 cm (9.6 in) from the breakout to P19AL Radio Rear Side Door Speaker - Left.	*Left Rear Door Harness Routing*	—
J800	Rear Side Door Door Wiring Harness - Right	—	Inside right rear door, approximately 24.4 cm (9.6 in) from the breakout to P19AM Radio Rear Side Door Speaker - Right.	*Right Rear Door Harness Routing*	—
J900	Rear Object Alarm Sensor Wiring Harness	—	At the rear of the vehicle, inside of rear fascia right side, approximately 5 cm (2 in) from the breakout to E7L Rear License Plate Lamp - Left.	*Rear Fascia Harness Routing*	—
J901	Rear Object Alarm Sensor Wiring Harness	—	At the rear of the vehicle, inside of rear fascia center right side, approximately 3 cm (2 in) from the breakout to X950 connector.	*Rear Fascia Harness Routing*	—
J902	Rear Object Alarm Sensor Wiring Harness	—	At the rear of the vehicle, inside of rear fascia center left side, approximately 5 cm (2 in) from the breakout to X955 connector.	*Rear Fascia Harness Routing*	—
J903	Rear Object Alarm Sensor Wiring Harness	—	At the rear of the vehicle, inside of rear fascia left side, approximately 5 cm (2 in) from the breakout E7R Rear License Plate Lamp - Right.	*Rear Fascia Harness Routing*	—
J904	Rear Object Alarm Sensor Wiring Harness	—	At the rear of the vehicle, inside of rear fascia left side, approximately 20 cm (7.87 in) from the connector X700.	*Rear Fascia Harness Routing*	—
J905	Rear Object Alarm Sensor Wiring Harness	—	At the rear of the vehicle, inside of rear fascia left side, approximately 33.6 cm (13.22 in) from B218L Side Obstacle Detection Control Module - Left.	*Rear Fascia Harness Routing*	—

Description and Operation

Power Mode Description and Operation

Serial Data Power Mode Master

The K9 Body Control Module (BCM) is the Power Mode Master and the K56 Serial Data Gateway Module is the Back-Up Power Mode Master.

The Power Mode Master uses various vehicle status conditions and inputs to determine the desired vehicle power mode state. The Power Mode (Off, Accessory, Run, Propulsion, Start) is communicated to other modules via Serial Data and other electrical signals in order to provide the proper feature operation for the appropriate power mode.

If the Power Mode Master cannot control or determine the correct Power Mode, the Backup Power Mode Master will take over and become the vehicle Power Mode Master and place the vehicle into the proper Power Mode by communicating with other modules via Serial Data to provide the proper electrical signals to provide the proper feature operation for the appropriate power mode.

S38 On/Off Vehicle Switch

There are 5 power modes to convey driver intent:

- OFF – A low power mode that allows maximum stand time until next start
- ACCY – Allows use of certain features that require operator authorization (Power windows for example). Propulsion is specifically disallowed.
- RUN – All features enabled except propulsion (motive force)
- PROPULSION – All features enabled
- START - This will transition to PROPULSION, including turning off non-essential loads to provide additional power for starting.

Power Mode States

Customer Action	Expected Vehicle Power Mode	S38 Vehicle On/Off Switch BCM Scan Tool Parameter	S38 Vehicle On/Off Switch Voltages
Vehicle OFF, S38 On/Off Vehicle Switch not pressed, Transmitter in Range	Vehicle Off Mode	Inactive	1.4 – 3.0 V (Switch Pressed) 3.35 – 4.26 V (Switch Released) 4.5 — 5.0 V (Switch Disconnected)
Vehicle OFF, S38 On/Off Vehicle Switch not pressed, Transmitter out of Range/ Away from vehicle	Vehicle Off Mode	Inactive	
Vehicle in any Power Mode EXCEPT OFF, then Press the S38 On/Off Vehicle Switch Foot On or Off the Brake Pedal, Transmitter in Vehicle	Vehicle Off Mode	Active (pushed) / Inactive (not pushed)	
Vehicle in Propulsion Mode, momentarily Press and Release the S38 On/Off Vehicle Switch Foot On or Off the Brake Pedal, Transmitter out of Range/Away from vehicle	Run Mode, With DIC Message No Remote Detected Press Brake to Restart	Active (pushed) Inactive (not pushed)	
Vehicle Off Power Mode, then Press the S38 On/Off Vehicle Switch for less than 5 s with foot Off the Brake Pedal; Transmitter in Vehicle	Vehicle Accessory Mode	Active (pushed) / Inactive (not pushed)	
Vehicle Off Power Mode, then S38 On/Off Vehicle Switch with foot On the Brake Pedal; Transmitter in Vehicle	Vehicle Start/Propulsion Mode (vehicle cranks then engine running (for Internal Combustion Engine) or Propulsion System Active for EV) power mode timeout is enabled	Active (pushed) / Inactive (not pushed)	
Vehicle Off Power Mode, then S38 On/Off Vehicle Switch with foot On the Brake Pedal for 5 to 10 s; Transmitter in Vehicle	Vehicle Start/Propulsion Mode (vehicle cranks then Propulsion Mode Active) power mode timeout will be disabled.	Active (pushed) / Inactive (not pushed)	
Vehicle OFF Power Mode, then Press and Hold the S38 On/Off Vehicle Switch for 5 s with foot Off the Brake Pedal; Transmitter in Vehicle	Vehicle Run Mode (Ignition ON without the Propulsion system Active)	Active (pushed) / Inactive (not pushed)	
Vehicle OFF Power Mode, then Press and Hold the S38 On/Off Vehicle Switch for 5 s with foot Off the Brake Pedal; Transmitter in Vehicle	Vehicle Start/Propulsion Mode (vehicle cranks then Propulsion Active) power mode timeout is disabled	Active (pushed) / Inactive (not pushed)	
Vehicle Propulsion Mode with vehicle speed detected above 4 km/h (2.5 MPH) press and hold S38 On/Off Vehicle Switch for 2 s or press and release it 2 times within 5 S.	Vehicle will transition from Propulsion Mode to Run Mode (Ignition On Propulsion system Inactive).	Active (pushed) / Inactive (not pushed)	
NOTE: If the transmitter is not moved for more than 1 hour it will become inactive.			

Service Mode

Service Mode is the Run Power Mode with power mode timeout disabled. This can only be done with the Service Tool.

Automatic Power Mode Timeouts

Note: If the Transmitter/Fob remains stationary and is not moved for one hour, it will go to sleep and may create a fob not in range condition.

This system is designed to prevent batteries from going dead in the event the ignition is left on while unattended, it is also designed to shut the vehicle off if left running unattended. After a Power Mode timeout, the Power Mode Master is responsible for shutting down the or transitioning the vehicle into the low parasitic sleep state “OFF” Power Mode. This Power Mode timeout strategy uses Vehicle Speed, Vehicle Power Mode, Parked Status and other Vehicle Conditions to make the timeout determination.

Accessory Power Mode

The Accessory Power Mode will timeout after approximately 5 minutes. The timer will Start once the system has determined it is in the Accessory Power Mode status. After the timer expires the Power Mode will change to the OFF Power Mode.

Run Power Mode

if the conditions listed below are met the Run Power Mode will timeout after approximately 40 minutes if the transmitter is in range, or 20 minutes if the transmitter is out of range. The timer will Start once the system has determined it is in the Run Power Mode status and all of the following conditions are met. After the timer expires the Power mode will change to OFF Power Mode.

If any of the following conditions are not met and/or if there is a change in the Brake Pedal or Clutch Pedal status, the Run Mode timeout timer will be disabled, and the timer will restart after all of the conditions are met again.

- Vehicle in Run Mode (Vehicle powered up S38 On/Off Vehicle Switch Green indicator on Propulsion Mode Inactive)
- Propulsion is Inactive
- Vehicle in Park.
- Vehicle Speed is 0 KM/MPH.
- Fast Idle is inactive (If Equipped).
- PTO Remote Start Status is inactive (If Equipped).
- Particulate Filter Cleaning Status is Inactive (if Equipped)
- S38 Vehicle On/Off switch was held for more than 5 to 10 seconds while starting the vehicle the actual time may vary based on model and/or year.

Propulsion Power Mode

If the following conditions listed below are met the Propulsion Power Mode will timeout after approximately 30 minutes if the transmitter is in range, or 15 minutes if the transmitter is out of range. The timer will Start once the system has determined it is in the Propulsion Power Mode status and all of the following conditions are met. After he timer expires the Power mode will change to the OFF Power Mode.

The Propulsion Power Mode timeout can be disabled with then vehicle in Off Power Mode, apply and continue to hold the brake pedal, then press and hold the S38 Vehicle On/Off switch for 5 to 10 seconds (the actual time may vary based on model and/or year). A DIC message will be displayed when Power Mode timeout is disabled.

If any of the following conditions are not met and/or if there is a change in the Brake Pedal or Clutch Pedal status, the Propulsion Mode timeout timer will be disabled, and the timer will restart after all of the conditions are met again.

- Vehicle in Propulsion Mode (Propulsion Active).
- Vehicle in Park.
- Vehicle Speed is 0 KM/MPH.
- Fast Idle is Inactive (If Equipped).
- PTO Remote Start Status is inactive (If Equipped).
- Particulate Filter Cleaning Status is Inactive (if Equipped)
- S38 Vehicle On/Off switch was held for more than 5 to 10 seconds while starting the vehicle the actual time may vary based on model and/or year.

Relay Controlled Power Mode

The BCM uses discrete push button switch inputs, transmitter in range status, current power mode state, and brake pedal position state to distinguish the correct power mode (Off, Accessory Mode, Run Mode, Start/Propulsion Mode). The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The retained accessory power relay remains on for a timed period after the Ignition Mode is OFF. Refer to *Retained Accessory Power Description and Operation on page 6-666* for more information on the retained accessory power function.

Push Button Start

The ignition mode switch has 2 LEDs that indicate the vehicle power mode Amber for Accessory Mode and Green for Run or Start/Propulsion Modes. When the vehicle is in the OFF mode, both LED’s will be OFF. Momentarily pressing the S38 On/Off Vehicle Switch button once, brake pedal not applied, the vehicle will enter into the Accessory Mode and the Amber LED will illuminate. The Accessory Mode will timeout after approximately 5 min to help reduce battery drain. With the ignition OFF, brake pedal not pressed, then pressing and holding the S38 On/Off Vehicle Switch for 5 s will place the vehicle in Run Mode (Ignition ON without the Propulsion Mode Active). The vehicle will stay powered up for approximately 40 minutes if the transmitter is in range, or 20 minutes if the transmitter is out of range, and the Green LED will illuminate.

With the ignition OFF brake pedal pressed, then press and release the iS38 On/Off Vehicle Switch, the vehicle will enter Start/Propulsion Mode and the Green LED will illuminate, the engine will crank and the engine will be running for Internal combustion engines (ICE), or Propulsion mode will go Active on Electric Vehicles (EV). The Propulsion Mode will timeout after approximately 30 minutes if the transmitter is in range, or 15 minutes if the transmitter is out of range. The timer will stop when the vehicle is shifted out of PARK or the brake pedal is pressed and released, the timer will reset after the vehicle is placed back in PARK with the Propulsion Mode Active.

Both LED’s have the voltage supplied from the body control module (BCM). The ignition mode switch sends the ignition mode switch status to the passive entry passive start module (PEPS) and to the BCM. The PEPS module sends a redundant signal to the BCM with the ignition mode switch status.

Transport Mode

Transport Mode is designed to reduce the parasitic load of some modules during shipping and/or during vehicle storage. Some features may be disabled or have reduced functionality while Transport Mode is ON. Transport Mode is enabled and disabled by either of the following methods:

- With the Scan Tool Diagnostics > Body Control Module > Control Functions > Power Mode.
- Turning the hazard flashers ON, apply and hold the brake pedal, then press and hold the ignition mode switch for greater than 15 s. For vehicles equipped with a DIC a message Transport Mode On when it is enabled and Transport Mode Off when it is disabled will be displayed for a predetermined amount of time. For vehicles equipped without a DIC, the battery indicator light will constantly flash on the Instrument Cluster when Transport Mode is enabled.

Battery Saver Mode

There are 7 different Battery Saver Modes. Battery Saver Modes 1 to 3 occur in Accessory and Run Power Modes (vehicle on propulsion system Inactive) if the battery voltage drops below approximately 11.5 V. Battery Saver Modes 4 to 7 occur in the Off Power Mode only. Battery Saver Modes 4 to 7 may set DTC’s.

- Battery Saver Mode 1: DIC message “Battery Low, Start Vehicle”, 4 chimes
- Battery Saver Mode 2: DIC message “Battery Low, Start Vehicle”, Load Shed Level 3 is activated
- Battery Saver Mode 3: DIC message “Battery Low, Start Vehicle”, Radio/Infotainment shut off, Load Shed Level 3 active
- Battery Saver Mode 4: Battery Saver Mode Ignition Off – Parasitic Current draw of 100 mA or greater
- Battery Saver Mode 5: Battery Saver Mode Ignition Off – Parasitic Current draw of 1 A or greater
- Battery Saver Mode 6: Battery Saver Mode Ignition Off – Battery Voltage less than 12.0 V
- Battery Saver Mode 7: Battery Saver Mode Ignition Off – Battery Voltage less than 11.6 V

Load Shedding

Prior to Load shedding Idle Boost will occur, the idle speeds will be increased by 25 to 300 RPM to help maintain a normal battery voltage. Idle Boost may be noticeable to the driver. If the battery voltage continues to drop below a normal state then load shedding will go active and it will start to reduce electric loads for components that will not impact the safe operation of vehicle. At load shed levels 2 and 3 a DIC message will be displayed “Reducing Features To Save Battery”. When load shedding is active the customer may begin to notice features starting to have reduced functions or may become inoperative. Examples of affected loads are radio, HVAC blower(s) front and rear (if equipped), heated/ventilated seats, heated mirrors, rear defogger and other devices with heavy electrical draws. Idle Boost and load shed levels can be observed with the scan tool.

Idle Boost 1

Idle is increased by 25-100 RPM and generally is not noticeable to most drivers.

Idle Boost 2

Idle is increased by 50–200 RPM and generally is not noticeable to most drivers.

Idle Boost 3

Idle is increased by 100–300 RPM and may be noticeable to most drivers.

Load Shed Level 1

Reduces load current by 25%.

Load Shed Level 2

Reduces load current by 50%.

Load Shed Level 3

Electric loads for components that will not impact the safe operation of vehicle will be turned Off.

BCM Awake/Sleep States

The BCM is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

- Ignition OFF, transmitter is out of range
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

Retained Accessory Power Description and Operation

Retained Accessory Power

The Retained Accessory Power (RAP) & Interruptible RAP (IRAP) Circuits are controlled by the K9 Body Control Module (BCM). The BCM is the Power Mode Master, it utilizes various Vehicle inputs to determine the Vehicle Power Mode and sends this information via Serial Data and providing associated electrical signals to the entire vehicle for proper feature operation.

The BCM monitors the vehicles power modes, and door ajar/open switch status to determine whether the retained accessory power should be initiated and remain active or be terminated. The RAP output is optional based on the vehicles option contents. When utilized, the RAP Output control can be used to control a RAP Relay, it may provide direct power, or s serial data message to vehicle devices/modules from the BCM.

Retained Accessory Power Relay Coil Control Circuit (If Equipped)

The BCM keeps the device or relay (if equipped) energized during all power modes, except Off-Awake and Crank. The device(s) remain active for approximately 10 min after the Vehicle is placed into the OFF Power Mode, provided none of the doors are opened.

Retained accessory power will end when one of the following conditions are met:

- The BCM receives an input from any door ajar switch indicating the opening of the door after the OFF Power Mode is achieved.

  Note: If the BCM is receives a door open/ajar active signal when the vehicle is placed into the OFF Power Mode, the retained accessory power will not initiate.

- The BCM internal timer for the retained accessory power expires after approximately 10 min.

Systems powered by the retained accessory power control circuit during the retained accessory power mode are as follows:

Note: The vehicle may not be equipped with all components as listed below.

- 12 V Accessory Power Receptacle
- Cigarette Lighter Receptacle
- Window Switches
- Sunroof Control Module (If Equipped)
- Sunroof Switch (If Equipped)
- Mobile Device Wireless Charger Module
- Mobile Telephone Control Module (If Equipped)
- Traffic Data Receiver (If Equipped)
- Transmission Shift Lever Position Indicator (w/ floor mounted console gear shift)

Serial Data Controlled Retained Accessory Power

Retained accessory power systems controlled by serial data are as follows:

Radio

Radio retained accessory power activation/termination is the same as relay operation with one exception; the only door that will turn the radio off during retained accessory power is the driver door open/ajar switch. The USB Ports will function the same as the radio.

Vehicle Communication Interface Module (VCIM) (Onstar®) (If Equipped)

VCIM RAP activation/termination is the same as radio operation with 1 exception; if there is an active call and the vehicle is placed in the OFF Power Mode, the VCIM will remain in RAP mode, and keep the radio in RAP mode until the call is terminated.

Interruptible Retained Accessory Power

The Power Mode Master (PMM) Controls components as needed If equipped with a RAP relay, the BCM controls the Retained Accessory Power with an exception, Interruptible Retained Accessory Power (IRAP) is deactivated during transmitter authentication. During Transmitter Authentication the PMM will deactivate components including IRAP to prevent Radio Frequency (RF) Interference (RFI) that may cause a “NO REMOTE DETECTED” message to be displayed on the drivers information center.

Note: If transmitter Authentication occurs while in Run or Propulsion Modes, it is normal to for IRAP to be interrupted momentarily (i.e. items connected to auxiliary power ports or chargers may momentarily go off then come back on).

If a remote transmitter was not been previously detected, Transmitter Authentication can occurs under any of the following conditions:

- The drivers side front door is opened.
- The drivers side rear door is opened.
- The S38 Vehicle On/Off Switch is pressed.

Section 7

Transmission

Shift Lock Control 7-3

Schematic and Routing Diagrams 7-3

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Description and Operation 7-5

Automatic Transmission Shift Lock Control Description and Operation 7-5

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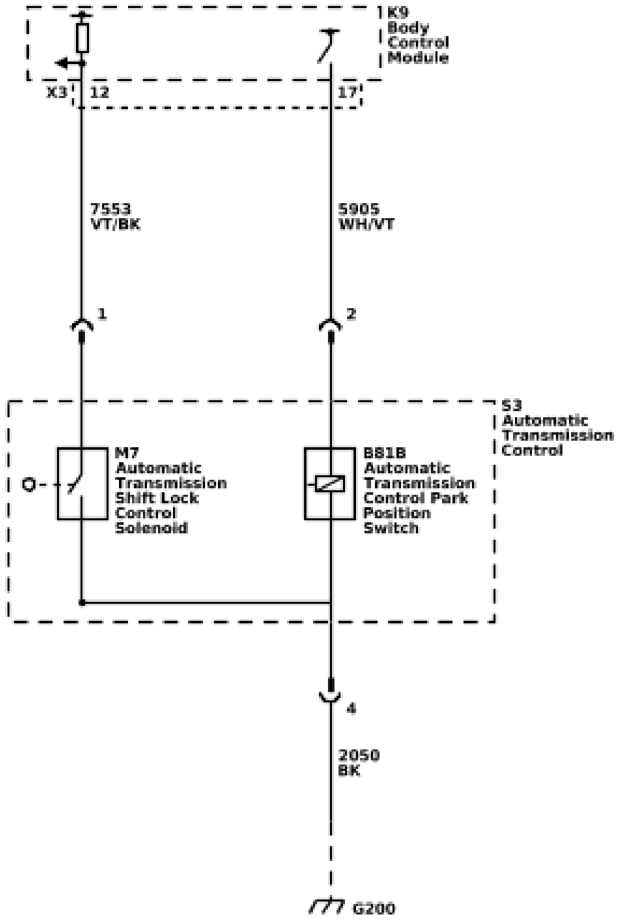
Shift Lock Control

Schematic and Routing Diagrams

Shift Lock Control Schematics (Shift Lock Control)


K9
Body
Control
Module
X3
12
17
7553
VT/BK
5905
WH/VT
1
2
S3
Automatic
Transmission
Control
M7
Automatic
Transmission
Shift Lock
Control
Solenoid
B81B
Automatic
Transmission
Control Park
Position
Switch
4
2050
BK
G200

6331886

Description and Operation

Automatic Transmission Shift Lock Control Description and Operation

The Automatic Transmission Shift Lock Control System is a safety device that prevents an inadvertent shift out of PARK when the engine is running. The driver must press the brake pedal before moving the shift lever out of the PARK position. The system consists of the following components:

- The Automatic Transmission Shift Lock Solenoid (serviced as the Automatic Transmission Shift Lock Actuator)
- The Body Control Module (BCM)
- The Engine Control Module (ECM)

The BCM controls the voltage to the shift lock control solenoid though the shift lock control solenoid controlled voltage circuit. The following conditions must be met before the BCM will supply voltage to the shift lock control solenoid:

- The ignition is in the ON position.
- The ECM sends an input via GMLAN serial data to the BCM when the Transmission Control Module (TCM) indicates the transmission is in the PARK position.
- The BCM receives a brake applied input from the stop lamp switch.

Since the shift lock control solenoid is permanently grounded, the BCM supplies voltage to the automatic transmission shift lock control solenoid, releasing the mechanical lock on the shift lever as the solenoid energizes. The energized solenoid allows the driver to move the shift lever out of the PARK position. When the brake pedal is not applied, the BCM turns the control voltage output of the shift lock control solenoid OFF, de-energizing the shift lock control solenoid. When the transmission is in the PARK position, the de-energized shift lock control solenoid will prevent shifting as the lever is mechanically locked in the PARK position.

During remote start operation the BCM will de-energize the automatic transmission shift lock control circuit, locking the shift lever in the PARK position

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